

EIGHTH INTERNATIONAL CONGRESS OF EGYPTOLOGISTS

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Cairo, 28 March – 3 April 2000

Abstracts of Papers



The Oxford Encyclopedia of Ancient Egypt

Donald B. Redford, editor-in-chief

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Edited by Zahi Hawass and Angela Milward Jones

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Mr. Amr Badr, President of Abercrombie and Kent Travel, for providing the Congress Bags.

Millennium Debates

Dear Colleagues,

It has always been my dream to see into the future for the monuments of Egypt and for Egyptology. When I found out that I was to be in charge of the arrangements for the Eighth International Congress of Egyptologists, I saw a way to fulfill this. I decided that a series of debates on eight major themes of Egyptology could review the achievements of the last Millennium and indicate the future direction of these subjects in the third Millennium.

Such discussions between the major international scholars in the field will be useful and important, not only for the delegates present, but also for a wider audience. In order to reach the maximum number of people, we made the hard decision to hold the debates in English and we are very grateful that the American University in Cairo Press will publish and distribute them as a separate volume of the Proceedings of this Congress.

Another difficult task faced us; to choose which experts should debate which themes. Amongst the international community of Egyptologists, we were faced with a surfeit of scholars! We wrote round to many people; some were unable to attend, some were too busy, others could not be contacted in time. We apologise for any inadvertent omissions. Our choice gradually narrowed down to those who were willing and would be present at the Congress meetings. To these, we extend our gratitude to all those who have taken the time to write their papers, formulate their ideas and to come here to discuss them in the shadow of the pyramids.

We look forward to some lively and controversial debating!

With thanks,

ZAHY HAWASS,

Chairman of the Organizing Committee of the
Eighth International Congress of Egyptologists

BAINES, John

Research on Egyptian Literature: Definitions, Background, Prospects

Respondent: W. Kelly SIMPSON

Panel: A. ROCATTI, B. MATTHIEU, F. HAIKAL, R. JASNOW

Cross-culturally, literature is not amenable to exact definition. Egyptologists have approached the field with three basic, often unformulated definitions in mind. These, which are not mutually exclusive, are in order of progressive restriction:

a Literature consists of all well-formed texts, that is, of written compositions of some size that employ connected discourse

b Literature is a temporally circumscribed phenomenon whose core is the "stream of tradition" (a term promoted by Oppenheim [1964] for the rather comparable Mesopotamian legacy), that is, all culturally salient texts that were maintained in scriptoria and other places and transmitted in the long term

c Literature is "belles lettres", a French term that has become widespread also in English for highly formed and primarily written (hence "lettres"), generally fictional texts composed for no single context, for such purposes as entertainment, edification, instruction, exploring the possible and imaginatively thinking the otherwise unthinkable.

Like all definitions, these are inexact, context- and culture-bound; the phenomenon is fluid and can be reflexively affected by the definition of its own genres. Texts can migrate over time and space from one genre to another, into and out of "literature". Boundaries are affected by chances of preservation. The circumscription of what constitutes a "text", which became salient in the late 20th century, is a background issue. Literature is not a completely autonomous cultural domain.

Definitions are analysts' and not actors' tools and should be used only to aid study. How can one approach an actors' perspective and how far should that be an analyst's goal, especially since it is not widespread in general studies of literature? Here, the Egyptologist, who may not be a typical student of literature, must communicate both with subject colleagues and with the wider scholarly world.

Egyptologists of the earlier 20th century tended implicitly to use def. *c*, which relates closely to those current in their own cultures but may also have the broadest cross-cultural acceptance. Def. *c* began to encourage close and not simply philological reading, but faced the predictable difficulty of fit between Egyptian genres and those of some cultures. From about 1940, the def. *a* perspective gained currency, being made normative for German-language Egyptology by the *Handbuch der Orientalistik* (1952), which included essays on essentially all genres of "text", adding in the second edition (1970) Fecht's essay "Stilistische Kunst" that presented vital formal aspects of most genres. The Otto volume *Fragen an die altägyptische*

Literatur (1977) maintained this strand, which Lichtheim's *Ancient Egyptian literature* (1973–80) disseminated and exemplified through a great range of texts. Def. *a* relates to the integration of registers across written genres, but unless theorized does not explicate that phenomenon.

Assmann's review of the *Handbuch* (1974) used mainly formalist criteria to argue for a more "literary" perspective close to def. *c*, probably expressing in theoretically sharp guise views that many held. Since then, studies of "literature" in the def.-*c* sense have increased and analyses have begun to approach the complexity of the core texts and to accord appropriate status to them. That status is not as "naive" products of storytelling or instruction designed potentially for anyone, a view that presupposed an implausibly broad spread of high culture, but as some of the most complex and meaning-laden non-visual products of the civilization.

Def. *b*, which is valuable particularly for studies of the civilizational status of high culture, has two essential aspects: i) the integration within literature of genres such as onomastica, medical and mathematical treatises, and hymns, as well as texts reused in the stream of tradition such as the Qadesh record of Ramesses II; ii) in the hypothesis of Assmann (1996), that the stream of tradition was a repository of core values, in which the central corpus—including such texts as *Sinuhe*—had this function and was not meant to entertain.

All three definitions appear in *Ancient Egyptian literature: history and forms* (1996), the successor to the *Handbuch der Orientalistik*, where Loprieno refines def. *c* in the broader context of def. *b*. Some aspects are further explored in *Definitely: Egyptian literature* (Moers 1999), while the 1996 Leipzig conference offers a more diverse perspective (Assmann and Blumenthal 1999). (I consider only the analysis of literary texts, not their editing.)

A presupposition of def. *c* is that the main works are "fictional" and not—like the Qadesh texts—records transferred into the realms of the quasi-fictional or of the stream of tradition, nor pragmatic compositions that we might read erroneously as "literature". The opposite view, which has been widespread for such works as *Sinuhe* and *Wenamun*, underestimates ancient authors and audiences by implying that they could not have imagined or comprehended such complex fictions. Until the article of Helck (1972), the acceptance of ancient ascriptions of authorship and assignment of dates did not take into account the sparsity of Old Kingdom uses of writing or the fictional character and attributions of the works themselves. Studies that presuppose these points are better founded and have more potential. In another perspective, for def. *c* to have a proper impact, research within it needs to be informed by a general and comparative literature, as well as siting its material within the stream of tradition.

Research on literature has centred around the "classical" Middle Kingdom corpus. While this bias replicates those works' position in later high culture, it restricts views of the diversity of literary genres and types. Pre-demotic literature of the first millennium has been neglected, while demotic has received rather little analytical attention. The latest periods exhibit the

greatest range of types and the most complex relationship with classical Egyptian high culture.

The written record reports imperfectly on text-using and text-creating institutions. "Oral literature" is essential to any model for the creation and transmission of written forms, hypothesizing contexts of performance that help models of intertextuality across genres and of interaction between the literary (def. c) and the inscriptional (def. a).

In order to exemplify possible approaches and to present perspectives for research, this paper will discuss the size and shape of the literary corpus (on def. c), its relation with the wider stream of tradition (def. b) and range of written forms (def. a), and the social and ideological situation and status of what was written.

HAWASS, Zahi

Site Management and Conservation

Respondent: Kent R. WEEKS

Panel: C. LEBLANC, F. EL-BAZ, F. SALAH, M. JONES, W. MAYER

Scholars and UNESCO experts have predicted that many archaeological sites around the world could be completely deteriorated in 200 years. I believe that the situation in Egypt is even more critical. It is possible that major portions of our ancient sites will be lost in 100 years, and, for some specific sites, even less. Many archaeologists and site administrators are not aware of the pressing need for site management principles and procedures. These must be part of long-term plans for the conservation of Egyptian archaeological sites. Site management can save archaeological sites from dangers inherent in mass tourism. Sites must be prepared so those managers can carry out conservation, restoration, recording, training programs, and so that conservation and computer data bases can be used in management programs.

Some of the principle problems and threats to the conservation of Egyptian heritage sites include:

- 1) Tourism;
- 2) Inadequate restoration;
- 3) The increase of excavations at the same time as a lack of preservation, maps, and publications;
- 4) Urban growth around archaeological sites;
- 5) Rising water table;
- 6) Environmental pollution;
- 7) Vehicular traffic;
- 8) Egyptian visitors during national holidays;
- 9) Lack of computer application (site modeling, GIS, data bases).

Looking ahead into the Third Millennium, we need an immediate plan of action for site management programs for each major archaeological site. We need a strategy for the protection of Egypt's ancient cultural heritage. These

needs should be carefully considered and discussed by everyone who works in the field of ancient studies.

In this paper I will discuss recommendations and strategies based on two important sites. I will deal with the site management of one of these sites and use this as an example for approaches to the other. The first site is the Giza Plateau where we initiated a site management plan in 1987. I will report on problems we faced and alternatives that we considered. The second site is Luxor, where overall site management plans for both the East and West Banks are crucial. For the Valley of the Kings alone, many important suggestions have been put forth. Some of these encompass the entire West Bank and include plans for developing tourism in ways that would protect the monuments. Tourism, we must bear in mind, is now considered the most critical problem for each site, as some five hundred and thirty-four million tourists visited archaeological sites around the world in 1995.

UNESCO experts, in many meetings in the last five years, have estimated that this year, 2000, the number will climb to over six hundred sixty-one million tourists. Of course, the majority of the visitors to Egypt want to see the ancient pharaonic sites.

Site management is urgently needed to protect the sites from this inexorable flow of tourism, and to contain and restore damage already done. Conservation laboratories and training programs are important components of any site management planning.

Recommendations for the site protection will be discussed, one of the most important recommendations that we should be aware of is to stop excavation completely in Upper Egypt for ten years (Giza-Aswan), and encourage only preservation, conservation, epigraphy, publication of unpublished monuments, maps for all sites and participation in site management program.

We can encourage many salvage archaeology projects. On the other hand, we should encourage excavation in the Delta because the rising water table, the extension of agriculture and housing projects will destroy all the archaeological sites in the near future.

LOPRIENO, Antonio

The Problems and Priorities in Egyptian Linguistics

Respondent: H. SATZINGER

Panel: M.A. NUR ED-DIN, D. SILVERMAN, F. JUNGE, J. RAY, P. VERNUS

In this paper, I shall concentrate on the achievements of Egyptian linguistics over the last fifteen years, from the aspects of ancient Egyptian grammar which appear more thoroughly investigated to the areas where innovative research is still very much underway. In particular, we shall observe how and why post-Polotskian Egyptian linguistics has centrifugally departed from the focus on syntax to devote more attention to the linguistic levels immediately below and immediately above the clause (or sentence), i.e. to morphology on the one hand and to discourse analysis on the other. While this trend away

from structural syntax is partially motivated by the perceived priorities of contemporary work in Egyptian philology, which calls for a "return to the sources," i.e. for a closer attention devoted to the specificity of Egyptian texts and genres, it may also represent the echo of current developments in general linguistics, especially the so-called "minimalist approach" in formal linguistics as well as functional models in non-formal linguistics.

This paper will also consider the dramatic impact of recent developments in the two areas of linguistic research which are conceptually most distant from syntax, namely phonology and lexicography. Progress in these traditionally underdeveloped areas of Egyptological research, as documented for example by the lively debate on Egyptian consonantism and by the renewed lexicographic activity in and around the Berlin *Wörterbuch* has been very much favored by the lesser hegemony exercised by the study of syntax: although phonology could be viewed as prototypical example of a philologically irrelevant linguistic study, as opposed to the philological centrality of lexicography, it turns out that their intellectual development within the field of Egyptology shares many common features.

In order to evaluate the concrete application of exemplary results of recent linguistic work in Egyptology, the theoretical discussion will be accompanied by specific philological references to Egyptian texts.

O'CONNOR, David

Egyptian Archaeology in the 21st Century

Respondent: M. BIETAK

Panel: F. HASSAN, K. MYSLIWIEC, M. LEHNER, M. VERNER, R. STADELMANN

Egyptian archaeology in the 21st century faces great technical issues, but the most important challenges are human: first, the changing attitudes of Egyptologists towards the aims and methods of archaeology as a humanistic and scientific mode of research. The 20th century's record *vis à vis* Egyptian archaeology is, as always, mixed; archaeological excavation has much expanded, and its qualities and aims consistently improved, while at the same time the Egyptian authorities have encouraged excavation as well as grappled with Herculean challenges so far as site management and protection are concerned. What is most important for the future, the 21st century?

First, while productive collaboration between the Egyptian authorities and foreign excavators will surely continue, foreign institutions should play a greater role in providing opportunities and resources enabling the scholarly and official cadre in Egypt, itself highly professional, to further enhance the training and knowledge of its all ready well developed younger echelons, given the limited resources that are otherwise available. This is especially important in that the excavation, documentation and conservation of Egyptian sites—of all periods: ancient, medieval and recent—requires a comprehensive approach that can only be brought into play by Egyptian

institutions such as the Supreme Council of Antiquities, the universities and others.

Second, despite great national pride in Egypt's cultural heritage, Egyptian archaeology is inevitably under great pressure as regards necessary development in terms of agricultural resources, living space and industrial needs. This provides a great challenge to the relevant Egyptian authorities and foreign institutions, who should actively support the Egyptians' own efforts to heighten Egyptian public interest in archaeology in terms of legislation and education.

Other important issues for future archaeology in Egypt involve full mapping and documentation, on a national scale, of Egypt's archaeological remains of all periods, including a systematic application of flood-plain archaeology. This would not only help structure future excavations, but it would be a major resource to the Supreme Council of Antiquities in terms of defining and protecting sites. Much relevant data all ready exist in the archives of the Supreme Council, but needs to be synthesized, and a great deal of new field survey also needs to be undertaken in which foreign as much as Egyptian institutions should take an active part.

Finally, Egyptian archaeology, in terms of both Egyptian and foreign institutions, ought to a major extent redefine its aims, methods, and theories. In some ways, this redefinition has been taking place in terms of programs undertaken by individuals and institutions, but it would be appropriate to formalize it in terms of conferences and strategies enabling our overall aims, methods and theoretical approaches to come more sharply into focus. Such conferences should concentrate on the realities of the relevant archaeology, be critical of theory yet aware of its potential, and aim at the development of strategies applicable both nationally and to individual regions and their sites.

REDFORD, D.B.

The Writing of Egyptian History within the Context of Egyptology

Respondent: G.A. GABALLA

Panel: N. GRIMAL, W. MURNANE, D. VALBELLE

At the turn of the present millennium, whereas classical disciplines can look back over a respectable 2000 years or more of historiography, we can contemplate less than 200 years of rather indifferent attempts to write a history of the area within which Ancient Egyptian culture came to birth and lived out its existence. For almost all of the centuries in question the attempts were undertaken, not by people interested solely in "history," but by art collectors, art historians, museum curators, linguists, philologists, escaped clergymen and (latterly) anthropologists. The ubiquity along the Nile of *objets d'art* made the collector king from the start, with the philologist a sort of vizier; and it is only of late that, as a result of derision from the scientific community, Egyptologists at large have hastily learned the buzz-words of anthropology and archaeology. Yet the results remain only partly satisfying: the interaction

between the sub-disciplines within our community of interest all too often are confrontational rather than collaborative.

Another barb from which Egyptology often suffers, and one hurled by classicists, is that the Ancient Egyptians entertained no "sense of history" of a sort familiar from the works of a Thucydides or a Polybius, and therefore have left behind no historical sources in the Greek sense. It would be very difficult, therefore, to write a proper history of people who were oblivious to history. One had better stick to mere chronicling and describing, an admonition many scholars have taken to heart with the result that what passes for *Histories of Egypt* are in reality nothing more than object catalogues.

The time has come to proceed with purpose. The cavilling criticisms alluded to above can easily be answered if not wholly thrust aside. With the advances in the forensic sciences and the humanities which have almost become bywords among us, it is profligate to waste resources by adhering to old-fashioned techniques. There must be a union of the efforts of text-critic, literary theorist, epigrapher, archaeologist and anthropologist to produce a true "Total History".

RUSSMANN, Edna R.

The State of Egyptology at the End of the Millennium: Art

Respondent: D. WILDUNG

Panel: H. SOUROUZIAN, C. SEEBER, M. EATON-KRAUS, M. MULLER

From the beginning, modern Egyptology has focussed on textual studies and archaeological fieldwork. It is certainly true that, during the Nineteenth Century and the first half of the Twentieth Century, Egyptian art was the subject of numerous insightful, ambitious, and even brilliant individual studies, a few of which are still influential. But these works, including some written by most influential Egyptologists of their day, remained essentially isolated from the mainstream of Egyptology. Significantly, and most unfortunately, they failed to coalesce into a recognized subdiscipline, with an academic tradition of acknowledged interests and methods.

During the later Nineteenth Century, some Egyptologists recognised the need to systematically document Egyptian material—sculpture and reliefs, as well as texts—in order to make it available to other scholars. The major fruits of their efforts are the early museum catalogue series, most notably the indispensable, and still ongoing *Catalogue Général* of the Egyptian Museum, Cairo. Perhaps the major achievement of Egyptian art scholarship in the second half of the Twentieth Century has been to continue and expand the documentation of Egyptian art, in the form of museum catalogues, in studies of the monuments of a particular time or place, and, of course, publications of individual objects.

In recent decades, the rise of the museum blockbuster exhibition has proven a boon to the study of Egyptian art. Many major Egyptian shows have gathered objects from often widely scattered locations and displayed them in

(usually) optimum conditions, while documenting them in exhibition catalogues, the best of which incorporate new research, and sometimes new and even controversial ideas.

The last twenty years or so have seen a steady increase in conferences and study groups devoted to different periods of Egyptian art or, occasionally, to broader historical topics in which art is included as a necessary component. This is a welcome sign that today more scholars are seriously involved with this subject than ever before—so seriously, indeed, that we are beginning to disagree about substantive issues, such as method.

However, at the turn of the century and the millennium, the study of Egyptian art still occupies an anomalous position, not only in Egyptology, but also with regard to traditional art history, which remains strongly Eurocentric and snobbish about "archaeological" material that is not Greek or Roman.

And very much remains to be done. The following list touches only on what I consider to be the major needs and problems facing the study of Egyptian art; and it is much too long.

1. Documentation of art historical material: a great deal is still to be done, including some of the most important collections in museums (among them, my own). There is also a problem with standards, particularly in the number and quality of illustrations, for which reason many quite recent catalogues (and of course, many old ones) should be redone. Computers will be increasingly important for documentation, but their role is still more problematic than is usually recognized.

2. Terminology: that we still lack basic vocabulary for Egyptian art, even to describe such obvious and ubiquitous features as certain poses, costumes, and subjects, is a clear indication of how backward this field still is. Past efforts to provide terms for various clusters of artistic features have been ineffective. Should terminology be tackled as a whole, in a major international effort?

3. Methodology: as noted above, this is now at least being discussed, though not yet at a very high level of sophistication.

4. As with archaeology and philology, the real purpose of understanding art is to increase our understanding of the culture that produced it. It is in this area that Egyptian art history has the most to offer, but it is also the area which is most undeveloped, and, to a great degree, undervalued. This is not the place to discuss the role of visual context in Egyptian thought and belief, nor is there time to consider why Egyptology has traditionally been so dismissive of purely graphic imagery. But it is necessary to recognise that cultural interpretations of Egyptian art, not to mention effective methods for developing such interpretations, are quite rudimentary, though there are indeed scholars doing very interesting research into different aspects of art in its cultural context.

5. Teaching: The majority of departments of Egyptology, over the world, do not even pretend to offer graduate programs in Egyptian art. Among the minority that do, fewer than a handful can be taken seriously. On all university levels, "Egyptian Art History" is almost always presented as a superficial chronological survey or as an adjunct to archaeology. Given the traditional

role of universities in nurturing and supporting academic disciplines, this failure to achieve true academic status may well be the single most important reason for the weaknesses of Egyptian art history today.

6. Museums: traditionally, museums have served as field schools for Egyptian art historians, and provided jobs for many. It must be recognised, however, that the role of the curator may change radically, as American and European museums scramble to recreate themselves as resorts of popular entertainment. In a few cases, curators have been forbidden to do research, or even to write labels. A growing number of curators now believe that their profession is doomed.

SCHULZ, Regine

Museums and Marketing—A Contradiction?

Respondent: A. RADWAN

Panel: A.-M. DONADONI, C. ZIEGLER, D. ARNOLD, M. SALAH

Up to now a museum had five basic assignments: collecting, preservation, research, presentation and mediation. Moreover, the Code of Ethics of the International Council of Museums formulated the principle of respectful and considerate dealings with any kind of object in a collection. Growing marketing interests have led to growing financial pressure for museums in many countries and have created fundamental changes in the assignment profile. A quick succession of popular exhibitions now seems to be the main aim of museum politics in a modern society. A museum must now supply entertainment and short-term ever-changing events, similar to a theme-park.

Egyptian collections are extremely attractive for the general public and seem ideal for serving the needs of the entertainment industry. But problems become obvious when entertainment starts to become more valued than the preservation of collections and when the pleasure we find in research and culture and which we try to convey is reduced to the decorative function of objects.

Te VELDE, Herman

History of the Study of Ancient Egyptian Religion and its Future

Respondent: J. ASSMANN

Panel: E. WINTER, J.-C. GOYON, J.-P. FRANSEN

Non-Egyptian classical authors, Herodotus, Diodorus Siculus and Plutarch already showed great interest in ancient Egyptian religion and preserved at least some useful information. Jean Francois Champollion himself, after the

decipherment of the hieroglyphs, started immediately with the study of ancient Egyptian religion from the sources in his Pantheon Egyptien.

The study of ancient Egyptian religion remains one of the most urgent tasks of Egyptology now. It is also one of the most difficult and most fascinating tasks. Erik Homung has so rightly written: "If we remove the gods from the Egyptians' world, all that remains is a dark uninhabited shell that would not repay study". That is to say, the core of ancient Egyptian culture is its religion. But to reach that core an effort has been made in the last two hundred years by publishing and studying archaeological, iconographic and textual material relating to ancient Egyptian religion comparable with the progress that has been made in the field of the sciences in the last two centuries.

Some of the older Egyptologists did not restrict themselves to the archaeological and literary preliminary study of the religion, but tried to give an explanation of the typical Egyptian religious phenomena e.g. Heinrich Brugsch, Gaston Maspero and Archibald Sayce.

It was not only Egyptologists but also religious historians or "Religionswissenschaftler" who studied Egyptian religion: Professor Cornelis Petrus Tiele, who was the first to occupy the newly founded chair for history of religions in the Faculty of Theology (1872) in Leyden wrote hundreds of pages on ancient Egyptian religion in a comparative study of ancient religions. We would say now that he was very much hampered by his evolutionism. But evolutionism was very common among 19th century Egyptologists. We also find evolutionism with Adolf Erman who knew the ancient Egyptian language and culture so well and whose book on ancient Egyptian religion (1st ed. 1905, 3rd ed. 1934) is probably the earliest general survey of the field that still can be profitably consulted. This evolutionism can also be found in the still readable books of the theologian and Egyptologist, James Henry Breasted.

It was the Norwegian scholar Willem Brede Kristensen, the successor of Tiele on the chair of History of Religions in the University of Leyden, who reacted strongly against evolutionism. Kristensen published his books and articles in Dutch so his immediate international influence was restricted. He worked through his pupils Van der Leeuw, De Buck, Bleeker and several others who occupied chairs and posts in Dutch faculties of theology. Egyptologists of this and the former generation know the ideas of Kristensen best through Henry Frankfort.

The school of Kristensen has made valuable contributions, but is now outdated, although the study of symbolism and the anthropological approach remain important. Kristensen was interested in 'the belief of the believer'. Nowadays it is accepted that we should respect the phenomena of ancient Egyptian religion although it is not required that a student of ancient Egyptian religion should be religious himself.

It is impossible to give here a complete survey of the history of the study of ancient Egyptian religion. But after Erman at least Sethe and Kees should be mentioned and also Bonnet, Lanzzone, Moret, Vandier, Blackman and Fairman. In the sixties and seventies there was the influence of Siegfried

Morenz and after him Erik Homung and Jan Assmann. In the eighties and nineties several valuable contributions to the study of ancient Egyptian religion have appeared.

Concluding remarks on the present state and future of the study of ancient Egyptian religion will follow. Contributions of religious historians, anthropologists and Egyptologists specialized in archaeology, history, language, literature and art are most welcome, but the chief contribution in this time of ongoing specialisation is to be expected from those who are prepared to focus their research on ancient Egyptian religion *per se*. Problems such as pharaonism vs. local religions, polytheism vs. monotheism, religion in life and death, myth vs. temple-ritual and symbolism should have the attention as well as the question of the historical development and end of ancient Egyptian religion.

Abstracts of Papers

The closing date for this volume of abstracts seems to have been elastic. Originally it was 30 September 1999 and then extended for one month. However, the abstracts continued to flow in, and are still coming. All the ones included here were accepted after review by the Scientific Committee of the Congress. We hope that there are no inadvertent omissions due to the difficulties of communicating with Egypt. Late abstracts, after review and acceptance, will be made available in photocopy form at Congress registration.

Because of our tight schedule, all papers have been given only limited editing for grammar and spelling. Occasionally, when they have considerably exceeded the total number of words requested, they have been shortened. Institute affiliation was only sometimes supplied, and we decided to omit it altogether for the sake of consistency. We have done our best with transliteration, but letters not within the normal Latin alphabet have had to be adjusted for printing reasons; we hope the results are still comprehensible.

It has been impossible to return proofs to authors for corrections, and so textual errors or omissions are the responsibility of the editors. Of our many helpers, we would like to thank in particular Daniel Polz at the Deutsches Archäologisches Institut and Susanne Bickel at the Institut français d'archéologie orientale for scanning and editing most of the German and French abstracts, Zakia Topozada for helping with more French papers, Deborah Vischak and Jennifer Hellum for editing and correcting the many English papers, and Michael Jones for proofreading.

Finally, and perhaps most of all, we thank the American University in Cairo Press, in particular Mark Linz and Neil Hewison, who have patiently undertaken to produce the Abstract Volume out of the diverse files with which they were supplied.

Zahi Hawass
Angela Milward Jones
Cairo, 29 February 2000

EL-ABBADI, Mustafa

On the Transmittance of Egyptian Learning into Greek

1. The cause of the Nile flood as reflected in the Egyptian and Greek sources.
2. In astronomy, there is evidence that Eudoxus of Cnidus (mid 4th c. B.C.) studied in Egypt and translated an Egyptian astronomical work into Greek (Dialogue of Dogs). That his astronomical system reveals Egyptian influence is shown by a comparison of the evidence derived from two Greek papyrological documents (P. Paris 'Ars Eudoxi'; P. Hibeh 27 'The Calendar of Sais') with a hieratic calendar from the Ramesside Period (Cairo Mus. 86637).
3. In technology, P.Oxy. 470 (3rd c. A.D.) preserves evidence of translation from Egyptian into Greek in a technical manual for two instruments:
 - a. 'Pesseuterion' an Egyptian instrument for tracing the movements of the sun, the moon and their eclipses. The surviving Greek text designates one station of the sun as 'Phoror' which is a Greek transliteration for the Egyptian 'per Hor' literally 'house of Horus'.
 - b. 'Horologion', the well known ancient Egyptian outflow water-clock. Our Greek text of the 3rd c. A.D., carefully gives the inner dimensions of the vessel according to the Egyptian system of measuring *in fingers*; significantly, they are identical with those of the Karnak water-clock of the XVIIIth Dynasty.

ABD EL-AZIZ, Hussein

Stamped Amphorae Stoppers from Alexandria

The Graeco-Roman Museum of Alexandria contains a collection of plaster stoppers of amphorae that came from two sites, Kom-El-Shukafa and Khartoum Square, according to the data recorded in the registry of the museum. The stoppers have different sizes, which range from 6 to 12 cm in diameter. They bear stamps with diverse shapes and forms. These stamps include inscriptions in Greek and Latin. There are several monograms and Christian signs and symbols, in addition to other representations. This paper deals with publishing, classifying and studying these stamps.

ABD EL-GHANI, Mohammed S.

The Antaiopolite Nome and its Administrative Changes in Roman Times

The word nome means the district as an administrative or geographical unit within a state or country. Egypt under Ptolemaic and later Roman rule was divided into c.30-35 nomes. The Antaiopolite nome, our present topic of research, was originally situated on the eastern bank of the Nile in the north

of the present governorate of Sohag in Upper Egypt. Some scholars identify the site of its capital, Antaiopolis, after which the nome was named, as the site of "Qaw el-Kabir", others as "El-Itmanyia", both belonging to the present locality of Timma. This town, Antaiopolis, seems to have been merely a village until late in the Ptolemaic period since it was mentioned in Diodorus of Sicily as "the village of Antaios". Its surrounding area was not mentioned as a separate nome before Pliny the Elder in his *Naturalis Historia* (late first century A. D.) This suggests that the Antaiopolite nome was constituted early in the Roman reign of Egypt, perhaps during the first half of the first century AD. Several administrative changes had occurred to this newborn nome during the first two centuries and later. The creation of the Antaiopolite nome on the eastern bank of the Nile had coincided with the establishment of another new nome facing the former on the western bank, i.e., the Aphroditopolite nome with its capital Aphroditopolis, or "Kom Eshqaw" in the present locality of Tahta. Both of the two new nomes were mentioned separately in the N.H. of Pliny the Elder.

As a result of some administrative changes in Egypt under the Flavian dynasty (70-96 AD) the two nomes were incorporated into one nome extending over both banks of the river and bearing a new name "the Antaiopolite nome and the Heptakomia". (The last word means the "seven villages" which used to constitute the nome which was previously called the Aphroditopolite on the west bank of the Nile.)

By the beginnings of the second century AD, the two nomes separated once again under the names of the "Antaiopolite nome" and the "Apollonopolite Heptakomia nome" successively. In spite of their administrative separation, the relations, mutual interests, and communications of their population on both sides of the river continued to be as close as before, as the papyrological documents reflect.

The present paper goes on to investigate the administrative changes of this area in northern Sohag under the Roman rule. It is mainly concerned with the frontiers of the nomes in question, their integration and separation in several occasions and the changes in their names. In addition to presenting the relevant evidence of documents, the article is an attempt to define the chronological phases of such changes to the third century AD and to interpret the reason(s) behind these changes.

ABDEL-AL, Soad

The Mallawy Papyrus No. 602/L-602/5; A Comprehensive Study of the Document and of Professional and Administrative Titles

This study is divided into two sections, the first of which deals with the publication of Mallawy Papyrus No.602/1-602/5. The second section is a study of most of the titles and professions which occur in the document. The

papyrus, which lies on the ground floor, vit.36 in the Mallawy Museum, was acquired in 1976 from Sharunah, 5 km north of Al Kom al-Ahmar. It consists of 5 separate consecutive sheets bearing an incomplete document, as one or more sheets are missing. These sheets constituted a very long document measuring more than 3 meters long and 28 cm wide. It consists of 91 demotic lines written by one family of scribes, as stated in the 18th line, in addition to a demotic line of signatures and a Greek line of endorsement (?). It is dated to Ptolemy XII and Cleopatra Trephania, about 79 BC. The main subject of this text is an apportionment deed concluded between eleven god's sealers from one part and another god's sealer called *P3-htr* from the other part. This apportionment was drawn to *P3-htr* as a lector priest after his parents' death, as both were lector priests. It included all places, funerary sides, and all related belongings such as income, revenues, and endowments attached to the priestly function. Furthermore, each lector-priest had a fixed share of number of buried people which were his own responsibility to care for. It is the first document which mentions such a big number of deceased persons as proved from their titles which constitutes the second part of this study.

ABDEL AZIZ, Eid

Die Statue eines Kabinettsvorstehers des Vizirs

Der Vortrag beschäftigt sich mit einer Statue aus dem Mittleren Reich. Die Statue ist aus dunklem Granit und befindet sich heute im Museum von Kom Aushim (Fajum), Nr.445 (= CG 406). Der Inhaber der Statue heißt sS-jb und trägt den Titel *jmj-r aXnwtj n T3tj*, "Kabinettsvorsteher des Vizirs". Nach dem Titel, der Perücke und der Tracht datiert die Statue an das Ende der 12. Dynastie.

ABDEL MEGUID, Ossama

The Nubia Museum in Aswan

The Nubia Museum is the achievement of a long awaited dream. It reflects the wonderful co-operation of people worldwide who responded to the appeal of UNESCO to save the Nubian monuments from the destructive rising waters of Lake Nasser following the building of the High Dam.

In the early eighties, several committees appointed by the Supreme Council of Antiquities and UNESCO started planning the Nubia Museum. The architecture was designed in such a way as to blend with the historical and archaeological nature of the area. The Museum visitors will be introduced to the consecutive civilizations that left a specific mark in the area, in some ways different from what was left in the land to the north because it was influenced by the environment. And they will also be introduced to the great kings who played an important role in Nubia, such as Ramses II and most of the kings of the 25th dynasty, regularly called the Nubian dynasty. After their visit, they

can enjoy wandering in the garden, six times larger in area than the building itself and which also has a small display of objects.

With this paper we hope to give an introduction to the Nubia Museum and to encourage all our colleagues to come and visit.

ABDEL RAZK, Mahmud

Stelen beim 4. Pylon in Ptahtempel in Karnak

(1) Stele des Antef wurde nördlich des 4. Tores gefunden. Sie stellt den ältesten sichern Beleg für die Existenz des Ptahtempels dar und wurde gestiftet von Antef I, den ersten König der 11. Dynastie.

(2) Stele Thutmosis III aus schwarzem Granit fand Legrain auf der Ostseite des linken Turms des 4. Tores. Sie befindet sich heute in Kairo Museum.

(3) Stele des Haremhab aus Kalkstein ist 160 cm hoch und 140 cm breit, und war neben der Stele von Thutmosis III.

(4,5) Stele von Sethos I., sowie eine ramissidische Sandsteinstele. Sie zeigt Ptah und Hathor vor den thebansichen Triade.

Die Texte der Stelen wurden in dieser Arbeit gezeigt.

ABD-EL-FATTAH, Ahmed

The Question of the Presence of Egyptian Antiquities in the City of Alexandria and its Neighbouring Sites

Throughout several past decades, there occasionally came to light many Egyptian monuments and objects of both religious and funeral natures in the city of Alexandria and other Graeco-Roman neighbouring sites, a matter which arouses the need for a detailed discussion of the archaeological term *in situ* and its applicability to this particular case.

The two main elements of discussion will be:

1. What has been documented in the Egyptian records about the noticeable expansion of life activities and the extension of the conventional boundaries of the Nile Valley towards the west throughout Egypt's history.

2. The conventional opinion of the scientists of the French expedition in Egypt (1799-1801), that the presence of Egyptian antiquities inside Alexandria was the work of the Ptolemies who reused them for the embellishment of the city. This opinion, in my view, has become a little archaic, for there has been carried out new archaeological research, from the time of the expedition and up to our recent day, and there has come about new evidence concerning this matter, which calls for a reconsideration of this old theory and for serious attempts to establish and prove the opposite opinion which I adopt and which claims that a great part of these Egyptian antiquities was already there in the region before the establishment of the city of Alexandria, or, in other words, that they were found *in situ* the day they were discovered.

ABOU BAKR, Amira

Restoration of a Tomb in the Graeco-Roman Museum, Alexandria

A third century Roman tomb was discovered in the Western Necropolis in Alexandria in 1891. It was transported to the Graeco-Roman Museum in 1920 and reconstructed in the garden, using quantities of iron bars. The severe environmental conditions to which the tomb was subjected caused the iron to corrode and parts of the shell disappeared.

Restoration was carried out and consisted of an architectural survey, documentation and photography of the tomb and removal of plant debris and the corroded iron. The limestone was then consolidated using silicate technology and stainless steel parts were used for stabilization and for creating an isolating upper surface to protect the tomb.

ABOU BAKR, Amira

The Conservation of Recently Discovered Mosaics in Alexandria

The two recently discovered artistic masterpieces of mosaic art were found in Chatby district in 1993, in the area where the new Alexandria library is now being erected. They were found in two adjacent rooms and were probably part of a floor in a palace. The mosaics originate from the Greek Ptolemaic period and are characterized by the use of very tiny pieces of coloured stones. The two mosaics reveal very rare figural scenes. Nothing similar has as yet been found in Alexandria, which makes them particularly important.

I will display a description of the procedures undertaken to restore one of them.

ABOU BAKR, Fadia

The Role of Public Doctors in Ptolemaic and Roman Egypt

Material on this topic of the role of public doctors in Ptolemaic and Roman Egypt is quite scanty in the literary sources of the time. This gap will be filled by the papyrological documents. In the Roman period the *basilikoi iatroi* were succeeded by the *demosiou iatroi*. They were organized in associations. Their duties were to examine conditions and make a written report to the government on dead, sick and injured persons. This duty throws some light on the applications for official medical examinations. To meet the expenses of the maintenance of public physicians, a special tax was introduced and levied on all the inhabitants of the *chora*, including military settlers.

Some light will also be shed on the legislation of Antoninus Pius conferring privileges on doctors up to a restricted number for each municipality and allowing the local authorities to give them salaries.

ABOUL ENEIN, Mostafa I., Fawzia H. HUSSEIN, Salwa A. EL-DEMERDASH, Magda M.E. HASSAN, Moshira E. ZAKI, Zahi HAWASS, and Naglaa M. KHOLOUSSI,

Survey of Trace Elements in Human Remains of Ancient Egyptians and its Possible Relation to Malignancies

Knowledge of the elemental composition of ancient and modern bone can throw light on several comparisons between the life of the ancient population and the modern one. This was the first attempt in Egypt to include age, sex, social and pathological differences. The materials used were the archaeological bone samples excavated in the Giza area from individuals who lived 5000 years ago. The bone elements analyzed are P, K, Mg, Na, Fe, Mn, Zn, Cu, Cd, Pb and Se. Significant increase in P, Mg, Na, Ca, Fe, Mn, Zn, Cu and Pb, and significant decrease in K and Cd, in the ancient controls compared to the contemporary ones (recent from NCI). Fe was significantly lower in the ancient female than the male bone, and there was a significant decrease in Mn in the ancient females with the increase in age. Zn and Se were increased, while Mg was decreased in the ancient workmen in comparison with the high officials. The Mg, Na, Ca, Cd and Pb were significantly decreased in ancient pathological samples when compared to the ancient normal controls. There is a significant increase in Fe and decrease in Mn in the contemporary pathological sample, compared with the normal control.

EL-ADLY, Sanaa Abd El Azim

Hathor: Herkunft und Entstehung

Der Vortrag setzt sich das Ziel, aus den verschiedenen Überlieferungen ein greifbares Bild über die Entstehung des Hathorkultes zu rekonstruieren. Im Jahre 1959 fasste Allam als Ziel ins Auge, den entstandenen Hathorkult zu untersuchen, ohne auf den Grund der Entstehung ihres Kultes einzugehen, denn es sei kaum etwas Sicheres dazu überliefert.

Cerny bezeichnet die ursprüngliche Natur ihres Kultes sowie die Umstände ihrer Herkunft als völlig unbekannt.

Hathor ist die universalste ägyptische Göttin mit ausgeprägten mütterlichen Zügen. In dem von Allam zusammengetragenen Material über Hathor befasst dieser sich ausführlich mit den Kultorten der Göttin Hathor und fügt ein Verzeichnis aller solcher Stellen bei. In den Inschriften wird betont, daß kein Gau frei von ihrem Namen sei. In Memphis finden wir den Hathorkult fast nur im Zusammenhang mit der eigentümlichen Bezeichnung „Herrin der Sykomore“.

Sie ist also die Göttin des heiligen Baumes. Die ältesten Überlieferungen ihres Kultes gehen in die Zeit der vierten Dynastie zurück. Sethe meint, daß Hathor in Kusae, dem uralten Gau, der später in den 15. und 14.

oberägyptischen Gau aufgeteilt worden ist, einer Baumnymphe gedient hat, d.h. einer Gottheit, die in der Erscheinungsform eines Baumes manifestiert ist, wie die Göttin der Sykomore in Memphis. Wann der Hathorkult in Theben auftaucht, ist nicht präzise überliefert. Newberry und Brunner setzen diesen Kult in die späteste 6. Dynastie, von Bissing vertritt die Auffassung, ihn in der frühen Reichseinigungszeit beginnen zu lassen. Cerny erachtet die Möglichkeit für wahrscheinlicher, daß die Hathor auf dem Sinai nur die ägyptische Abbildung einer Lokalgottheit ist, die dort schon eine Verehrung vor der Ankuft der Ägypter genoßen hat.

In dem Vortrag wird versucht, Herkunft und Entstehung des Hathorkultes näher zu beleuchten.

AKSAMIT Joanna

The Tuthmosis III Temple at Deir el-Bahari: Progress of Work and Perspectives for the Future

The temple of Tuthmosis III at Deir el-Bahari (*Djeser-akhet*) was discovered by the mission of the Polish Centre of Archaeology in 1962. The excavations continued until 1967, when the main platform of the temple was finally cleared, but the completion of the excavations did not exhaust problems connected with the remains of the ruined building. The bulk of the objects which were found in those years were thousands of fragments of broken wall reliefs and architectural elements of the temple, most of them with fully preserved colours.

The work leading to the theoretical reconstruction of the wall reliefs of the temple was started in 1978 and continued until 1996. During seventeen seasons of the activity of the mission, the iconographical programme of the decoration and the original architectural shape of the Tuthmosis III building were reconstructed to the extent that presently the temple can at last be spoken of as if it has never been destroyed.

In 1984, in co-operation with the Supreme Council of Antiquities, a new programme was

started. Its aims were to restore the wall reliefs and to protect the temple remains *in situ*. Most of the pavement and the bases of columns in the preserved northern part of the Hypostyle Hall were consolidated and existing fragments of lower parts of several columns were re-erected. The last, but not the least field of the activity of the mission was the restoration of broken wall reliefs. Rebuilding the walls of the temple in their original places is impossible, but re-erection of a part of one wall, comprising blocks reconstructed from small fragments, was started in 1996 in the expedition's magazine. It is hoped that it would be possible to show the result to the public in a museum.

ALEXANIAN, Nicole

Social Dimensions of Old Kingdom Mastaba Architecture

In typologies of Old Kingdom mastaba tombs one regularly finds intuitive classifications according to the tomb size. A detailed analysis of the area of all mastaba superstructures showed that indeed three distinct groups of small, middle-sized and big mastabas exist. The tombs in these size-groups can further be distinguished by architectural features like the lay-out of their chapels, the plan of their substructures, the building materials used etc. Passages in autobiographical inscriptions from the Old Kingdom prove that the tomb classes characterized by tomb size and architectural lay-out in fact do reflect ancient Egyptian concepts. In addition the titles held by the owners of big, middle-sized and small tombs show that the size of the tombs corresponded to the rank of the buried person. The paper will discuss the social significance of the tomb classes.

ALLAM, A. R. and G. A. MAHGOUB

Attempts for Archaeological Sites: Humidity Removal by Means of Electrical Method

Egypt is considered one of the oldest and greatest nations from all of human history. Antiquities and archaeological sites from all the ancient historical periods are distributed among the whole of Egypt. Rising of groundwater tables up to the foundation levels of archaeological sites is one of the dangers facing the antiquities. Water started to rise through the walls and columns of monuments by means of capillary action. Pumping, well point systems and other types of interceptor trenches provided a good control of the groundwater table without affecting the construction elements' humidity. This work aims to provide an electrical method for the protection of the walls and columns of monuments from humidity. The electrical method is based on applying a constant direct electrical current field through special configuration to the wet parts of the building. The electric field drives the moisture out, resulting in drying, and provides a safe protection from the harmful effects of moisture. The experimental work was set-up on limestone and clay samples. Laboratory results indicated that the method has a considerable effect on lowering the moisture content of the soil samples.

ALLAM, Schafik

King Haremhab's Tax Exemption

In the second section of his decree (*Urk IV 2155, 9 ff*) King Haremhab sets out to display his exhaustive knowledge of the circumstance everywhere in his kingdom. He emphasizes moreover that he was in search of competent persons with strong character; such persons have been consequently chosen

for his administrative apparatus. Hereafter he comes to speak especially of the local *qnbt*-councils (a sort of municipal council) which are widespread throughout the country. From these councils he firmly demands an adequate administration (at local level) in line with social justice and in agreement with the royal directives.

Seemingly all these statements are merely an introduction to one definite instruction which the king explicitly puts forward. It runs as follows: "As to the *sh3y. t* (in the form) of silver, gold ---, [my] Majesty [has ordered] to turn (one's) back against it (i.e. to refrain from it) and not to allow (any) *sh3y* (in the form) of anything to be exacted by the *qnbt*-councils of Lower and Upper Egypt". Obviously this instruction is the main objective of the second section of the royal edict.

In order to grasp the real meaning of *sh3y.t/sh3y* we have to examine its occurrences in other texts which have come down to us from the same period. Upon scrutinizing them a clear idea emerges. It is a comprehensive term which precisely refers to a particular tax—one amongst others. Taking into consideration also the various situations indicated in the relevant texts, it appears that King Haremhab was indeed proclaiming the exemption of the population, in general the lower classes, from that specific tax which used to be levied by the *qnbt*-councils on their localities.

ALLEN, Susan J.

Tutankhamun's Embalming Cache Reconsidered

One of the advantages of the reinstallation of a museum gallery, is the opportunity to reconsider material which has sat quietly in its cases for many years. For the reinstallation of the Amarna Gallery at the Metropolitan Museum of Art in 1996 a new study of the cache of embalming material and other articles packed in large pottery jars and found in a deposit in KV 54 was made. The deposit was excavated in 1907 by Theodore Davis and Edward Ayrton and identified as coming from the burial of Tutankhamun. Transferred to the Museum in 1909, it remained unpublished until 1941, almost 20 years after the discovery of the Tomb of Tutankhamun (KV62) when Herbert C. Winlock, who had been present when the jars were unpacked, produced a small monograph. He discussed the circumstances of the find and meticulously documented the contents: pottery, floral collars, textiles, meat and bird bones, embalming remains, and inscriptional material which had come from it. As was his habit, he also included an historical reconstruction of how the jars and their contents had come to be deposited in KV 54 written in his very literate and readable style.

In reconsidering the cache for the reinstallation, all the evidence from the Davis excavation, from Carter's clearance of the tomb of Tutankhamun and from the work of other scholars on tombs in the Valley of the Kings was collected. Based on the reanalysis of this evidence, a different reconstruction than that described by Winlock will be proposed.

ANGENOT, Valérie C.Y.

Les vectorialités (= pattern de lecture) des parois de mastabas de l'ancien empire.

L'organisation des registres et des scènes d'une même paroi a longtemps été jugée fantaisiste ou arbitraire. Par le présent exposé, je voudrais, montrer qu'elle est, au contraire, agencée de façon méticuleuse et recherchée et que cette minutie correspondait, pour les Égyptiens, à un besoin vital.

C'est principalement sur l'étude des représentations de travaux des champs que j'ai basé ma théorie, puisque ce thème est l'un des seules à présenter une suite {chrono} logique suffisamment importante que pour être exploitée. J'ai ainsi pu dégager plusieurs vectorialités (= mouvement du regard induit par le déchiffrement d'un vecteur temporel) significatives, plusieurs *patterns* de lecture parmi lesquels boustrophédon, spirale, chiasme, lecture "classique" avec retour en début de registre, de haut en bas ou de bas en haut, de gauche à droite ou de droite à gauche. Ces types de lectures semblent correspondre à un besoin de retour éternel des sujets représentés.

Les parois des mastabas sont ainsi soumises à une saturation sémiotique où l'acte de lecture lui-même entre en résonance avec le thème représenté et avec sa fonction métaphysique.

MOHAMMED, W.M.

The Great God in Ancient Egypt

One of the most important issues in ancient Egyptian religion is the identification of the 'Great God'. But many figures were given the title Great God, including the king (either the living or the dead), Re, Osiris, Anubis, Thoth—even the deceased themselves in some Old Kingdom inscriptions claimed the position. It may be said that each god in ancient Egypt, even the local gods, acquired the title.

In the Old Kingdom inscriptions, the tomb-owner threatened the violators of his tomb with judgement by the Great God, but the Great God is nowhere named. Was it Re, Osiris, Anubis, Thoth, or some other figure?

Many attempts have been made to identify the Great God, but in all cases the conclusions represent only our understanding of ancient Egyptian religion, not the religion itself. This paper aims to identify the Great God in the light of ancient Egyptian beliefs.

AUTH, Susan H

Ptolemaic Glass-Mosaic Hathor Plaques, Egyptian or Greek?

The cultural diversity of Ptolemaic and early Egypt is strikingly illustrated by a group of tiny, exquisitely crafted mosaic-glass plaques. Heirs to a long development of plain and mosaic glass inlays in Later Period Egypt, they represent both Egyptian and Greek subjects: Greek theater masks, decorative motifs and Egyptian deities such as Bes, the Apis bull, Isis and Hathor.

The iconography and style of the Hathor mask image will be discussed here, and compared with her image in other media. There will be a brief explanation of mosaic-glass manufacturing techniques and workshops and earlier uses on coffins and religious objects. Despite some Greek stylistic features, the three-centimeter square glass Hathor masks reproduce accurately traditional iconography. Hathor has cow's ears, characteristic wig and broad collar, uraeus cobras and cavetto cornice headress. Her blue face reflects her epithet "the lady of the turquoise".

Although close to the Hathor image in other media, the stylistic features link the glass plaques with mosaic-glass Greek theater masks undoubtedly made in the same workshops. Available evidence suggests that small regional glass workshops made the plaques, perhaps using Alexandrian pattern-books. Some theater-mask plaques preserve wooden surrounds and may have been inlaid into wooden boxes. The plaques with Hathor and other Egyptian deities have lost any evidence of their original context and intended usage.

AYAD, Mariam

Closing the Circle: On Deconstructing a Reconstructed Text: The Case of Pyramid Texts

Although it has been known for almost a century now that the text inscribed on the walls of the chapel of the Nubian God's wife of Amun, Amenirdis I, at Medinet Habu, comprise in part Pyramid Text spells, not much has been done towards publishing an analytical edition of this text. In attempting to do so, I came across the invaluable cross-references provided by Georges Daressy in his 1901 edition of this text. Turning to Sethe's *Die Altaegyptischen Pyramidentexte*, I was pleased to discover the striking parallels that the text of Amenirdis I shared with those of the Old Kingdom rulers Pepi I, Teti, Pepi II, and to a lesser extent, Unas and Merenre. Further research indicated, however, that Kurt Sethe did utilize the text of Amenirdis I, among others, to restore the Old Kingdom versions of the Pyramid texts. In an attempt to identify original from restored passages, I shall examine the extent to which the text of Amenirdis I contributed to Sethe's reconstruction of the Pyramid texts.

BADAWI, Fathi Afifi

Kurzer Bericht aus dem spät-prädynastischen Fundort Maadi

Nach drei Grabungskampagnen unter meiner Leitung in den Jahren 1984-86 wurden mehr als 1200 Quadratmeter Fläche in einer Tiefe von 40-200 cm in Maadi-West und Maadi-Ost aufgedeckt. In der Siedlung von Maadi-West wurde ein ovaler Bau aus unregelmässig behauenen Kalksteinblöcken entdeckt. Daneben wurden in Maadi-Ost mehr als 45 Bestattungen mit Gefäßbeigaben gefunden. Auf weitere Einzelheiten wird während des Vortrages eingegangen werden.

BAGH, Tine

Abu Ghâlib: Re-evaluation of a Middle Kingdom Site in the Western Nile Delta

Excavations of the town of Abu Ghâlib in the western Nile Delta were carried out by a Swedish mission in the 1930s. On the basis of the seals and pottery found, it was dated to the Middle Kingdom.

Although only published in preliminary reports by H. Larsen, Abu Ghâlib has since been used as a type site for the early Middle Kingdom. The seals have recently been compared to the seals from the famous "Montet Jar" from Byblos and a cylinder seal with the name of Senwosret II has been considered the upper chronological limit.

Our understanding of the pottery sequences of the Middle Kingdom has been largely expanded with the more recent excavations at Dahshur, Lisht and Tell el-Dab'a. This knowledge has made it all the more important to have a second look at the Abu Ghâlib material of which a large part is kept at the Medelhavsmuseet in Stockholm, Sweden. Only the complete vessels have been published and it has proved worth while to study the unpublished fragments of marl *zirs* and other forms only found in the shard material: a few fragments could date as early as the end of the Old Kingdom/First Intermediate Period and others to the later part of the Middle Kingdom. A study of the excavation notes, also kept in the Medelhavsmuseet, can in most cases also provide the contexts of the Abu Ghâlib finds. The results of this re-evaluation of the Abu Ghâlib material will be presented.

BAKR, Mohamed Ibrahim

Recent Excavations at Ezbet et-Tell

Ezbet et-Tell, which lies about five kilometres southwest of Kafr Saqr (Sharqiya Province) and three kilometres to the north of Kufur Nigm, has

recently proved to be one of the richest sites of the Archaic Period. Four systematic excavations were carried out in 1984, 85, 88 and 90 by a team from the University of Zagazig.

What still remains of the archaeological site has been divided in two (A and B) by agricultural activities. Tell A lies directly to the southeast of the village and covers about seven feddans. It lies on the west bank of the Tanite branch of the Nile, now the Moes canal.

In the first short season in 1984, a cemetery of the Archaic Period was uncovered, with 60 tombs containing funerary equipment: pottery and stone vessels, jewellery, schist palettes and hundreds of alabaster and schist vessels, some with potmarks. The name of King Narmer is clearly identified.

During the second season in 185, 23 tombs were uncovered, some with pottery coffins and others with pot-burials with the burials of children. In 1988, 17 more tombs were discovered, and another 13 in 1990.

Below the late pre- and early dynastic cemetery, a late protodynastic settlement was excavated.

BARES, Ladislav

Recent Work in the Tomb of Iufaa at Abusir

This paper is a summary of recent work in the shaft tomb of Iufaa. In 1996, the main burial chamber was found intact. Later on, the bottom of the main shaft of the tomb was consolidated and the burial chamber protected by a huge roof of reinforced concrete. In 1998, the texts and representations inside the burial chamber were copied and the double sarcophagus of Iufaa opened. At the end of the paper, a preliminary assessment of the relief decoration found inside the burial chamber will be presented and future activities are suggested (including the steps necessary for the planned opening of the tomb for tourists).

BÁRTA, Miroslav

The Tomb of Kaaper: Reconstructing the Early Fifth Dynasty Tomb at Abusir

Blocks with reliefs from the tomb of Kaaper have been known since the 1950s when they found their way into several museums in the United States. More blocks from the same tomb were saved by the Saqqara Inspectorate in the 1980s. The tomb itself, however, was only discovered and excavated by the Czech Institute of Egyptology at Abusir South in 1991.

The documentation of the tomb made during the excavation, together with the blocks removed from the tomb prior to its scientific investigation, enable the reconstruction of the original appearance of its L-shaped chapel. Moreover, the archaeological and artistic analyses of the tomb make clear its early Fifth Dynasty date and its close connection with tomb development

during the late Fourth and early Fifth Dynasty at Giza (above all with several tombs from the GIS cemetery).

BARTEL, Hans-Georg

Zur antiken Ideenähnlichkeit: Personifikationen im Pyramidentext- Spruch 205 und der Elemente des Empedokles

Es werden vier Elementarpersonifikationen, die in PT 123a-e (Pyramide des Unas) sowie als Varianten im MR (CC 20520) und NR (Hatschepsut-Tempel von Deir el-Bahari) genannt werden, mit denen verglichen, die Empedokles in seinem Lehrgedicht "*Peri Physeos*" (Frg. B6 nach H. Diels) mit seinen vier Elementen gleichsetzt: Zeus-"Feuer", Hera = "Erde" (oder "Luft"), Aidoneus/[Hades] = "Luft" (oder "Erde") und Nestis (eine in Sizilien beheimatete Göttin) = "Wasser".

Im Sinne der Ähnlichkeit und Vergleichbarkeit menschlicher Erkenntnisse bei der Reflexion objektiver Realität wird folgender Gegenüberstellungsversuch begründet vorgeschlagen ([U] = Unas-Pyramide, [E] = Empedokles):

[U] Mwt = [E] Nestis/"Wasser" (bzw. "Sperma"), [U] Sw-st = [E] Aidoneus/"Luft", [U] N(j)-ahwt (sonstige Lesung Nahbwt) = [E] Zeus/"Feuer", [U] Nfrt-nr(w) = [E] Hera/"Erde". Da die Zuordnung der von Empedokles genannten Gottheiten bzw. *rhizomata* zu den sonst bei ihm anders bezeichneten Elementen in der antiken wie in der modernen Interpretation nicht ohne Probleme und die Bedeutung der ägyptischen Personifikationen unklar ist, sollten diese vergleichenden Untersuchungen zu einem besseren Verständnis beitragen.

BASTA, Samiha J.

Consolidation and Restoration of Monuments and Sites (Tomb No. 1703 Ankh Ib, Western Cemetery) Giza Plateau

The aim of the present work was to find out the suitable technique and materials for consolidation and restoration of a discovered adobe monuments (Tomb of Ankh IB, Western Cemetery). The study materials used were Befix (acid mineralic hardner for natural silicates) and Namex (complex organic polymer with silicates chemical-reactive groups in aqueous solution). Two methods have been applied, namely surface coating and surface brushing. These applications gave good results for the restoration and consolidation. Results obtained reveal no change in physical and chemical properties of the treated materials.

BAVAY, Laurent

**Between the Nile Valley and Cyrenaica :
Pottery from the DAIK Excavations
at Umm 'Ubaydah temple (Siwa Oasis)**

Since 1993, a DAIK team under the direction of Kl.-P. Kuhlmann has been undertaking fieldwork in the Ammoneion, the oracular complex of Amun in Siwa Oasis (Western desert). The temple of 'Umm Ubaydah is located some 400m south of the Aghurmi acropolis and connected to its Oracle temple by a processional avenue. Recent excavations between the remaining wall of the sanctuary, decorated under Nectanebo II, and the enclosure wall have provided a stratigraphic sequence showing evidence of different building phases. An important fill layer sealed by an ancient soil level and overlying the foundations of a levelled wall yielded a large quantity of pottery, which can be dated between the end of the 4th and the middle of the 3rd century BC (early Hellenistic period). This assemblage represents a valuable contribution to the definition of the relations between the oasis and neighbouring regions. A substantial part of the local ceramic production shows the influence of Egyptian technical traditions. A few actual imports confirm the close relations with the Nile Valley, and possibly with the oases of the southern Egyptian desert. Connections with the West and the Greek world are attested by imports from Cyrenaica and the Attic region respectively, reinforcing the image of Siwa as an important crossroad between major cultural spheres.

EL-BAZ, Farouk

Desert Wisdom in the Old Kingdom

Field observations in the Western Desert of Egypt during the past 25 years resulted in the detailed mapping of its surface features, including vast sand sheets and dune fields. The quartz sand in these deposits originated from the Nubian Sandstone exposed in the southern part of the desert. It was transported by numerous river channels which were revealed by radar images from space, to inland depressions during humid climates in the geological past. Archaeological evidence indicated that wet climates alternated with dry episodes throughout the Quaternary. The last humid period west of the Nile River persisted from 11,000 to 5,000 years ago, when plants thrived and animals and man roamed the terrain.

It is reasonable to assume that, as the land west of the Nile gradually became a desert 5,000 years ago, its population migrated to the only stable source of water. There was, however, a population in the Nile Valley and the Nile Delta that had flourished during the previous 2,000 years, and had developed an advanced "river technology". The two populations had to organize better to produce enough food for both. The social organization and the mixing of the "desert wisdom" with 'river technology' would have created a

vigorous new society; this may have ignited the spark for the initiation of ancient Egyptian civilization.

Some hints of the importation of a deep understanding of the desert environment into the Nile Valley abound in natural carvings of solid rock. The Western Desert of Egypt is teeming with landforms that were created by natural geological processes of rock fracturing and erosion by both water and wind, which are stable in the windy environment. These landforms mimic the pyramids of Giza and the Great Sphinx, suggesting that they inspired the Nile dweller at the dawn of civilization.

BEATTY, John

Ancient Egyptian Knots

There are no cultures in the world which lack knotting. Knots potentially have practical, symbolic and decorative value. It is generally accepted that in early Egyptian culture, knots are not depicted in a realistic manner. Some people have held that this meant that knots may have had a "sacred" aspect and it was considered improper to depict them. Another indicator of the importance of ropes and knots is that the cartouche is actually a rope encircling a name.

Nonetheless, knots appear in stylized ways in Egyptian art, but there seems little way to know just which knots were used for which purpose or what symbolic or decorative value they may have had. Nor is it clear whether or not the stylization of the knot in art is in any way distinct enough to indicate specific knots.

Since there are in existence a number of artifacts in and on which knots occur, it may be possible to attempt a correlation of objects with graphic depictions in order to ascertain if the kinds of knots can be identified. This paper examines the possibility of carrying out such a research project.

BECKER, Jürgen

**Gangsysteme im Pyramidenbau des AR und ihre Funktion
im Rahmen von Konstruktion und Bauausführung**

Die Positionierung der Grabkammern der großen Pyramiden der 4. Dynastie in markanter Lage in oder unter dem Pyramidenkörper

- entweder unter der Vertikalachse
- oder auf der Nord-Süd-Zentralachse
- oder auf der Ost-West-Zentralachse

ist bisher auf die von den Baumeistern hierfür angewandten vermessungstechnischen Verfahren nicht untersucht worden.

Kann aus der Führung von Pyramidenpassagen—unbeschadet deren zweifellos kultischer Primärfunktion—auf eine Hilfsfunktion der Passagen als elementar geometrisch ermittelter Richtungskorridore zu den o.a. vermessungstechnisch kritischen Kammerpositionen geschlossen werden?

Die bis heute erforschten Methoden für das Ausrichten und Vermessen des eigentlichen Pyramidenkörpers ermöglichten diese exakten Kammer-Einmessungen insbesondere dann nicht, wenn der Kammereinbau

- unterirdisch in Stollenbauweise
 - tief unter der Pyramide in großen, offenen Konstruktionsschächten mit schrägen Zugangskorridoren
 - in Pyramiden mit einem inneren Felskern
- erfolgte.

Es gibt aber für die hier praktizierten Vermessungsverfahren schlüssige archäologische Baubefunde. Sie sind als solche allgemein bekannt, bislang aber nicht auf eine konstruktive Bedeutung hin abgeklöpft worden.

Es handelt sich um

- unterschiedliche, aber entweder auf die jeweilige Kammerlänge oder die Kammerbreite abgestimmte Verschiebungen der Pyramideneingänge einschließlich der anschließenden Gangverläufe aus der Nord-Süd-Zentralachse nach Osten (bei dem vereinfachten Pyramidenbau-Schema ab der 5. Dyn. nicht mehr vorgenommen)
- die regelmäßigen Mündungen der Korridore in/in der Nähe von Kammerecken oder in der Schmalseite der Kammer
- die Genauigkeit der Gangverläufe hinsichtlich Orientierung und Einhaltung des Neigungs- bzw. Steigungswinkels auf langen Strecken (z.B. Große Pyramide in Giza: 1cm!).

Die von den Baumeistern erkennbar angewandten "Peil"-Verfahren werde ich an signifikanten Beispielen erläutern.

BEDIER, Shafia

Der Sarg des Djehuti-em-het

Im Ägyptischen Museum zu Kairo befindet sich ein Sarg mit der Inventarnummer 16/10/16/1, der einem hohen Priester von Hermopolis mit dem Namen Djehuti-em-het gehört. Der Sarg besteht aus mit Stuck überzogenem Holz und ist mit farbigen religiösen Texten und Darstellungen auf gelbem Grund versehen. Die Dekoration lässt das Stück in die Spätzeit datieren. Da das Stück noch unter Bearbeitung ist, kann Näheres jetzt noch nicht vermittelt werden.

BEHLMER, Heike

Egyptological Publishing for the 21st Century; the Case of the *Göttinger Miszellen*

Not only Egyptology in general but Egyptological publishing as well has been deeply affected by developments which have taken place in the wake of the unprecedented growth the field has experienced starting in the 1960s. Without pretensions to specialized knowledge, I wish to trace the impact of

these developments, which I should like to subsume under the terms of "expansion", "particularization", and "professionalization", on a small non-profit journal which has been remarkably successful during the quarter-century of its existence. After an overview of its history, I wish to address the current challenges that the *Göttinger Miszellen* faces and invite the audience to discuss the outlook at the turn of a new century.

BELLUCCIO, Adriana

Le calendrier égyptien

Le Calendrier Égyptien est la plus extraordinaire invention de l'esprit. On aboutit à l'année de 365 jours, seulement après avoir trouvé la clef pour mesurer les mouvements du soleil, de la lune, et des étoiles. Le cycle "lunaire" de 2.5 ans est conçu en fonction du Calendrier Égyptien, il se compose de 9.125 jours divisés en 25 années lunaires, dont 9 "Grandes" de 13 mois (=384/385 jours), et 17 "Petites" de 12 mois (=354/355 jours). Les phases lunaires se déroulent sur le plan du calendrier de 365 jours, sans qu'il y ait intercalation de sorte. L'hypothèse avancée par R. Parker, au sujet d'un 13e mois de Thoth intercalaire s'avère fausse.

Le décalage d'un jour tous les 4 ans est le pivot autour duquel tourne tout le système du Calendrier Égyptien. C'est à cause de ce décalage qu'au bout de 25 ans se produit le retour des phases lunaires aux mêmes jours du Calendrier Égyptien, dont la structure mobile produit, dans l'intervalle de 25 ans, le déplacement de 6 jours 1/4. En application de ce même principe, dans l'intervalle de 1460 ans, le 1er Thoth retourne à sa position originare, tandis que le Calendrier Égyptien a avancé 365 jours sur le Calendrier Julien.

L'an 5 d'Auguste en Égypte = 29 Août 25 av. JC marqua le début d'un nouveau cycle de 1460 ans; c'est à cette époque-là qu'eut lieu la réforme du Calendrier Égyptien.

BELOVA, Galina A.

Geo-Political Importance of Tell Ibrahim Awad

Tell Ibrahim Awad is located in the Delta in the immediate proximity of Avaris and Per-Ramses, 14 km north of Faqus. Finds made there during the joint Russian-Dutch excavations since 1995 give us grounds to believe that this center played an important role in relationships with the Eastern Mediterranean cultures from the Early Dynastic Period through the First Intermediate Period. Finds made under the foundations of the temple of the latter Period indicate that it was an important religious center as well. The author, leader of the Russian team, will discuss the importance of this location with respect to the geo-political boundaries of early Egypt.

BERENGUER, Francesca

The Qurnet Murai Necropolis (Thebes West)

The focus of interest of this paper is the necropolis of the nobility in the west of Thebes: Qurnet Murai. It is located on a rocky foothill to the east of Deir el-Medina, to the west of the burial temple of Amenophis III (just opposite) and to the south-west of the Ramesseum. It might well be one of the least known sites of the whole Theban necropolis. Officially, it contains 17 tombs, plus one recently excavated by the SCA, next to TT 221. All but one belong to the New Kingdom: four to the 18th Dynasty and twelve to the 19th and 20th Dynasties.

There are also three lost tombs: TT D1, TT D2, and TT D3. They are small tombs decorated with painted plaster. Some of them are striking due to their iconography—of important historic value—and the people they belong to, who once enjoyed the highest positions of the pharaonic administration. To mention some, we find Amenhotep, called Huy, Viceroy of Kush under Tutankhamun (TT 40), Merymose, also Viceroy of Kush under Amenhotep III and the lost tomb D1, again another Viceroy of Kush from the reign of Tuthmosis III, called Nehi.

It is interesting to point out the fact that three of the 18 tombs of this small necropolis belong to Viceroys of Kush, when only four tombs of viceroys are known from the so-far 30 documented ones, and of these four, three are located in Qurnet Murai. This piece of information, together with other facts, proves the importance of the site.

Of all the documented tombs of Qurnet Murai, only ten still have some remains of their original decoration. On the other hand, there are only 11 ground plans of all of them; the rest were not even drawn. Today, six of them are the stables of the 'gurnawis' families' dwellings, except TT 274, which is completely buried. Access to eight of these tombs is quite easy, but to the rest it is extremely difficult due to the amount of rubble accumulated.

It is also worth mentioning that only 18 of the 415 Theban nobles' tombs are found in the necropolis of Qurnet Murai. In contrast, there are 85 at Dra Abu el-Naga, 148 in Sheikh Abd el-Qurna, 49 in Khokha, and 54 in Deir el-Medina. This difference in number is obviously quite relevant and inspires further research. There have already been some very successful results: as was expected, there are more undocumented tombs in Qurnet Murai that have been used, generation after generation, as either dwellings or stables by the 'gurnawis' families. They are big interments with pillars and the typical floorplan with the shape of an upside-down T. Due to deterioration there is no decoration or texts left.

In short, the intention of this paper is to make known six tombs to be added to the Qurnet Murai necropolis. It is highly probable that more exist, but our ultimate aim is to preserve these emblematic tombs and to recover this necropolis from neglect and oblivion.

BERNHAEUER, Edith

Untersuchungen zur Privatplastik der 18. Dynastie

Auch die Privatplastik im Alten Ägypten ist zwangsläufig ein Spiegelbild ihrer Zeit. So werden die Umwälzungen, die sich auf gesellschaftlicher, religiöser und wirtschaftlicher Ebene am Ende der 17. Dynastie und zu Beginn der 18. Dynastie abspielen, in der Plastik von Privatpersonen sichtbar. Diese Veränderungen drücken sich in der Privatplastik vorwiegend in der Form von neuen Attributen aus, zu denen beispielsweise Stelen, Götterfiguren, Naassistren, Königskinder, Opferplatten oder auch Libationsbecken gerechnet werden müssen. Besonders der Zeitraum von Hatschepsut bis Amenophis III. ist von diesem Vorgang geprägt. In späterer Zeit ist kein derartiger großer Wandel durch Neuerungen mehr feststellbar.

Einblick in die Vielfalt der neuen Statuentypen und ihre Weiterentwicklung während der 18. Dynastie bis zur Zeit Amenophis' III. soll der Vortrag geben. Nicht nur der Statuenkomplex des Senenmut zeigt z.B. mit den ersten Belegen für Erzieherstatuen, Sistrophoren oder Theophoren Innovationen in der Privatplastik. Neben dem Attribut ist auch die Körperhaltung der Privatstatue von besonderem Interesse.

BETRÒ, Marilina

Faces for Mummies: 3D Computerized Facial Reconstruction of Egyptian Mummies from CAT Data

The problem of rebuilding a face from human remains has been, until now, especially relevant in the ambit of forensic sciences, but its potential interest to archaeologists and anthropologists is not negligible. I present here the results of multidisciplinary research carried out at the University of Pisa, whose aim is reconstructing, through Spiral Computed Tomography data and virtual modelling techniques, 3-D models of the possible physiognomy of ancient Egyptian mummies. This work involved different competencies: Egyptology, anthropology, image processing. Its application to the study of Egyptian mummies could provide a new, efficient tool for the problem of the identification of royal mummies or, if applied to extensive samples of mummies, it could offer new insight into the problem of realism in Egyptian art.

EL-BIALY, Mohamed

Recherches et travaux de mise en valeur dans la Vallée des Rois. La tombe KV42.

Depuis plusieurs années, le Conseil Supérieur des Antiquités a entrepris, dans la Vallée des Rois, des travaux de nettoyage et de mise en valeur du site. Plusieurs tombes ont été aménagées en vue de protéger et de conserver

les parois décorées. A l'extérieur, des travaux de déblaiement ont également permis d'améliorer sensiblement la lecture du site. Grâce à ces activités, plusieurs tombes restaurées sont désormais accessibles aux visiteurs. Les travaux entrepris par l'Inspectorat des Antiquités de Gournah ont aussi pour but de mieux connaître l'histoire de la nécropole royale, et le nettoyage de ces tombes peut fournir la matière à une nouvelle réflexion. C'est le cas, notamment, de la sépulture KV42, longtemps attribuée à Sennefer, avant d'être identifiée pour être celle de Thoutmosis II, voire de la reine Merytrê-Hatshepsout, grande épouse royale de Thoutmosis III. Récemment, grâce à une nouvelle fouille systématique de cette sépulture, des éléments de mobilier funéraire sont venus s'ajouter à ceux qui avaient été jadis mis au jour par H. Carter. L'opportunité se présentait dès lors de pouvoir réouvrir le dossier relatif à l'histoire de cette tombe et de proposer, à partir de nos observations et de nos remarques, de nouvelles hypothèses quant à son occupation au cours de la XVIIIème dynastie.

BICKEL, Susanne

Amenhotep III at Karnak: The Main Lines of a Building Program

Following the tradition of the 18th Dynasty, intensive building went on in the temple of Karnak under the reign of Amenhotep III. The main effort of Amenhotep's building policy seems to have been dedicated to the different accesses to the temple area. The new western access, the third pylon, was the major achievement of the reign. The southern gateway, the tenth pylon, was marked by a colossal statue although only the lowest parts of the pylon were built. A smaller gate established the link with the northern precinct of Karnak.

Strong emphasis was laid on economic structures of which only individual blocks remain. The study of this material, which is decorated in a very specific style of raised relief, reveals the existence of an important complex, identified as Amun's granary (*shenut*), comprising at least two large doorways as well as chapels. The monumental size of its entrances and their decoration, as well as several scenes from Theban tombs, indicate that this granary had a prominent ritual function besides being designed to stock large amounts of grain. This entity probably functioned in connection with the production area called *shena* which is known through several fragments of a relatively small passage decorated on behalf of Amenhotep III.

The blocks that were reused in 21st Dynasty constructions form a coherent ensemble that most probably belonged to a court decorated with scenes commemorating the king's *sed*-festival. Substantial parts of this decoration show a cycle of rituals that is in many aspects comparable to the one at Soleb temple.

BIESBROEK, Alexander

Magic in a Private Collection

Although the number of museums exhibiting ancient Egyptian art is approximately known, nobody can estimate the number of private collections in the world. Much information about Egypt could be extracted from the innumerable treasures that are hidden in such collections, if only scientists had access to them.

Some years ago I came into contact with the American owner of an important collection of ancient art, mainly Egyptian and Pre-Columbian. He first became interested in collecting when, in 1972, he discovered some ancient objects in a few crates which had been stored in the attic of his grandfather's house for as long as anybody could remember. Ever since he has been occupied in enlarging his collection. However, nobody has ever been allowed access before, and virtually none of the objects has ever been published. After long negotiations the owner finally granted permission to publish part of the collection, albeit under strict conditions. The collection has a certain emphasis on objects of magic-religious nature. Among them is a magical stela, belonging to the well-known type of Horus stelae or cippi. It carries some standard hieroglyphic inscriptions but also has a rather unique combination of words and images, relating it to certain spells in the Book of the Dead, but also to temple ceremonies and to concepts that are usually found in a funerary context. After a short presentation of some highlights from the collection we will focus on this stela and the meaning of its symbols.

BILLING, Nils

Some Spatial Properties of the Goddess Nut in the Pyramid Texts

This paper aims at delineating some of the roles allotted to the goddess Nut in the Pyramid Texts. She stands out as a main character in this oldest comprehensive textual testimony of ancient Egyptian mortuary theology, representing both the cosmological property of the tomb and the regenerative maternal medium of the divine king. A closer look at the spatial distribution of specific types of *Nut*-oriented texts reveals a significant pattern. The texts identify the trajectory of transformation as it accrues to the deceased king. They also establish the ontological properties pertaining to the two main chambers of the 6th Dynasty pyramid substructures. Hence, with the framework provided by this text material, a cosmological and ontological plan can be revealed, in certain respects analogous to the one already established for corpus Unis by J. Spiegel and J.P. Allen.

BLASIUS, Andreas

Army and Society in Ptolemaic Egypt: Integration and Conflict

For nearly 300 years Egyptian soldiers and officers fought for the Ptolemies in their outer wars and inner struggles against foreigners and Egyptians. This paper focuses on the situation of Upper Egypt during the late Ptolemaic period, when the careers of Egyptian officers reached their quantitative peak. An intensifying militarization of administrative institutions led to an increasing number of Egyptians acting as civil and military nome-strategoi. Two persons appear on stage here: the first is Ptolemy, son of Panas, who held this office at Tentyra in the time of Cleopatra VII–Augustus. As his ancestors' names and his Demotic documents show, he was of Egyptian origin, but by avoiding his own Egyptian name, his proud use of Ptolemaic titles, and his Greek graffito he also presented himself as a well-Hellenized and loyal follower of his Hellenic monarch.

Contrary were the intentions of the second of the two persons, the Greek strategos Callimachus II, son of the Epistrategos Callimachus I, who was honoured under Cleopatra VII by the priesthood of Amonrasonthêr at Thebes for his extraordinary deeds. These proceedings were recorded on a stela, which strongly resembles the 'Satrap Stela' for Ptolemy, son of Lagos, later King of Egypt, in tone and intention. In contrast to the loyal Egyptian '(royal) kinsman' Ptolemy, son of Panas, Callimachus II, the Greek '(royal) kinsman', threatened the crown by his own ambitions. Both officers impressingly illustrate the variety of positions and tensions in the Ptolemaic army and society.

BLOXAM Elizabeth

Transportation of Quarried Hard Stone from Lower Nubia to Giza during the Egyptian Old Kingdom

'Chephren's Quarry' in the Western Desert of Egypt 65 kilometres northwest of Abu Simbel in Lower Nubia, was the source of blue iridescent banded granite-gneiss of which the 4th dynasty seated statue of Khafra is an example. The Egyptian state-run monopoly of exotic raw material acquisition and transportation from remote locations formed a major component of economic and ideological practices during the Old Kingdom.

Stone built ramp structures dating to the Egyptian Old Kingdom (2686–2181 BC) are unique features of the quarry site, rising to approximately 5 feet high (1.5 metres) at their face. The first systematic excavation of the loading ramps and settlement at 'Chephren's Quarry' was conducted in April 1999 by the Institute of Archaeology under the directorship of Dr. Ian Shaw. Archaeological evidence from the excavation suggests that alternative strategies for the transportation of stone to Lower Egypt were used to

overcome the geographical, geomorphological and environmental difficulties that the site presents.

Interpretation of the fresh archaeological evidence and a comparative analysis of other contemporary quarry sites suggests the 'kelek' or buoyed raft as an alternative method of stone transportation from the quarry. This concept incorporates the utilization of the depression of the Wadi Tushka as a closer source of water to the quarry than the Nile to minimise haulage over land. This research also introduces the concept of mobile quarry labour forces resident at Umm es-Sawan in the Fayyum.

BOANO R., E. FULCHERI, R. GRILLETTO, E. LEOSPO et E. RABINO MASSA

L'analyse histologique des tissus momifiés pour un monitoring sur l'état de conservation des pièces anthropologiques

Au musée égyptien de Turin en Italie se trouve une collection de momies humaines très importante. Tout cela est le résultat des fouilles que Schiaparelli, Farina et Marro ont réalisées en Égypte entre 1903 et 1937.

La valeur historique et biologique des collections étant très grande, la nécessité d'entreprendre un monitoring sur l'état des pièces anthropologiques s'est imposée. D'autre part, et afin de permettre les interventions les plus convenables à leur conservation, il a été procédé à l'analyse histologique des tissus momifiés.

BOOR, Jocelyn

World Systems Theory and the Old Kingdom: a Test Case

The extraordinary amount of material culture available for research has necessarily been the focus of Egyptology. Theory has remained under-utilized as the discipline continues to record and interpret artifacts of all sizes. The data thus obtained potentially lends itself to a supra-regional analysis. World-Systems Theory appears to be one of the more useful modes of such an analysis, particularly for the Old Kingdom. Texts, such as the tomb biography of Harkhuf (Sixth Dynasty), as well as the archaeological evidence, provide the basis for an initial study. A discussion of this theory and its applicability to the precapitalist world is presented in this paper with specific references to the Old Kingdom. The core/periphery component is applied with mixed results, using the concepts of hierarchy and differentiation, as well as the network boundaries approach. This paper attempts a preliminary application of World Systems Theory to the Old Kingdom in hopes of stimulating further research along these lines.

EL-BOUHY, Gamal

Protective Solutions to Preserve Antiquities from Environmental Factors

With regard to the preservation of the cultural heritage from damage caused by environmental pollution, we can classify the antiquities into two main categories:

First, indoor antiquities or antiquities existing inside museums, where the air pollution and the relative humidity reach their maximum effect as the result of crowds of visitors. For example, in the center of Cairo, we could easily note the extreme amount of traffic and the car parks surrounding the Egyptian Museum on all sides, yet we do not note the least environmental protection. Many studies have been done and demonstrated the high effect of the air pollution inside the museums, especially on the organic archaeological objects such as papyrus, textiles and wood. In order to solve this problem, we propose a special system of ventilation.

Second, the outdoor antiquities or the antiquities existing in open areas. In these cases, the deteriorating effects are mostly caused by the ground water, which is a mixture of the subsurface water and the sanitary draining water or sewerage water containing a very high content of salts, which severely affects the buildings and floors in archaeological sites. In order to participate in solving this national problem, we propose, at least, a temporary protective solution, which is to use a complete computerized system in order to record the movement of water and to fix its level below the archaeological buildings. This will limit the danger to some extent, until we completely isolate the area by means of more suitable ways for permanent protection.

BRISSAUD, Philippe

Tanis: Protection du patrimoine et recherches archéologiques à la lumière des derniers travaux

Les fouilles récentes ont fourni des données entièrement nouvelles sur l'occupation de Tanis. La connaissance globale du site a pu se développer grâce à la prise de photographies aériennes à partir de cerfs-volants. Au moyen de cartes réalisées grâce à ces photographies, des sondages ont été effectués pour fouiller les bâtiments. Le plan de Tanis est ainsi enrichi d'édifices cultuels et de quartiers nouvellement découverts. L'habitat urbain se révèle très dense dès le début de son histoire.

Le sud du *tell* fut occupé depuis la TPI par un temple d'Amon d'Opé. Le centre fut doté, à l'époque ptolémaïque, d'un temple d'Horus de Mesen. Dans ce secteur, photographies et sondages révèlent une occupation couvrant plusieurs époques. Le Ghârib Sâh, sommet du *tell*, a été exploré. Un *survey* et l'analyse d'une citerne y révèlent des niveaux byzantins. Des sondages prouvent que la hauteur de cette zone n'est pas due à la *gezira* elle-même,

mais correspond à une accumulation de niveaux archéologiques depuis la TPI.

La protection du patrimoine est un objectif fondamental. Le *tell* est fragile malgré ses dimensions: rétrécissement des marges, érosion éolienne et pluviale et remontée de sels. Des mesures de protection ont été prises. Des dizaines de milliers de mètres cubes de *radîm* anciens ont été enlevés, rendant aux temenos du Nord un aspect plus lisible. Des digues ont été élevées pour que les monuments ne soient plus pris dans les boues. Des centaines de blocs du temple d'Amon ont été isolés sur des socles. Le redégagement du temple de l'Est, et de ses colonnes de granit, est en cours. La reconstruction de cette spectaculaire colonnade sera probablement envisageable.

BROCK, Edwin C.

The Sarcophagus Lid of Queen Takhat in KV 10

The Amenmeses Project, affiliated with the University of Memphis, has been engaged in a systematic clearance of the tomb of Amenmeses (KV 10) since 1992. During these clearance operations, artefactual evidence was discovered indicating provisions for the burial of a royal woman named Takhat. The most significant of these artefacts were limestone fragments of at least two canopic jars bearing this woman's name and numerous pieces of a broken red granite lid of a sarcophagus also naming Takhat. Noteworthy is the apparent re-use of these artefacts, re-inscribed for Takhat but belonging to other owners originally. With all but the central descent of the first pillared hall now cleared, no traces, up to now, have been found of the sarcophagus box that the broken lid once covered. The decorative program of the lid is an unusual amalgamation of excerpts from the *Imy-dwat*. Its overall shape bears similarities with sarcophagi of 19th Dynasty royal women. The remains of this artefact and its decoration will be presented together with clues to its original owner.

BROVARSKI Edward

A Second Style in the Relief of the Old Kingdom

In a recent article (1995) entitled "A Second Style in Egyptian Art of the Old Kingdom", Edna R. Russmann examines in detail Egyptian sculpture made in the late Old Kingdom. The same group of Sixth Dynasty sculpture had earlier been studied by William Stevenson Smith and Cyril Aldred, but Russman expands on the observations made by these scholars, and, more than either, calls attention to the way in which the second Old Kingdom style renders the human form.

In the present paper we are concerned with two-dimensional relief as opposed to three-dimensional figures. Nonetheless, the reliefs in the "Second

Style" share with the statuary of the same period a number of common features, as Russman was aware, without specifying which monuments she had in mind.

The writer first became aware of this "Second Style" in his study of the reliefs of Nekhebu from his chapel (G 2381) in the Senedjemib Complex at Giza for a projected volume in the Giza Mastabas series of the Museum of Fine Arts, Boston. As his autobiography makes clear, Nekhebu served King Pepy I.

An attempt is made in the present paper to date the appearance of the new relief style and to define its formal stylistic features. Examples derive from Saqqara and the provinces, as well as Giza.

CAPASSO, Mario

The Restoration of Egyptian and Greek Papyri Housed in the Egyptian Museum, Cairo

An équipe of egyptologists and papyrologists of Lecce and Bologna Universities and restorers of the Research and Preservation Center of Cairo Egyptian Museum, directed by M. Capasso, has worked from 1997 in the Museum for preserving the Egyptian papyri exhibited on the walls and fragments of Greek papyri, many of them rolled up or folded, precariously kept in envelopes and tin boxes. The inside and outside atmospheric pollution has damaged the pharaonic papyri, that are closed not hermetically in frames supplied with glass sheets jointed by sellotape. Until now the équipe has stopped the decay of 33 pharaonic papyri, cleaning, disinfecting and closing each of them between two new and entire glasses. 400 Greek fragments have been unrolled, cleaned and put under 56 glass frames.

CASTEL, Georges

Mastaba de Khentika, gouverneur de l'oasis à la fin de l'ancien empire

Situé à Qila al-Dabba, nécropole de la ville antique de «Ayn Asil» près du village actuel de Balat dans l'oasis de Dakhla, le mastaba de Khentika date de l'époque de Pépi II. Découvert par Ahmed Fakhry en 1972, ce mastaba a été fouillé et restauré par l'IFAO de 1983 à 1993.

La superstructure du monument se compose d'une chapelle, d'une cour et de salles secondaires, le tout entouré d'un mur d'enceinte. Son infrastructure comprend quatre caveaux: le principal, occupé par Khentika, et les trois autres, par son fils Déchérou, également gouverneur de l'Oasis, et par des femmes de leur entourage. Des puits situés dans la cour communiquent avec les caveaux.

La construction est en brique crue à l'exception de la chapelle et du caveau principal qui sont en calcaire et en grès. Le caveau principal est

décoré de scènes représentant notamment: Khentika et son épouse devant une table d'offrandes, des travaux agricoles, une chasse à l'hippopotame, des bateaux et un banquet funéraire.

Les caveaux ont été construits au fond d'une large et profonde fosse de plan carré mesurant 20 m de côté par 9,50 m de profondeur. Une descenderie, à l'est, a permis d'évacuer les déblais pendant le creusement de la fosse, puis de descendre les matériaux durant la construction des caveaux. La fosse, ensuite, a été remblayée pour permettre la construction de la superstructure. L'effondrement des caveaux ayant entraîné le tassement du remplissage de la fosse, la superstructure s'est effondrée. Trois des quatre caveaux étaient inviolés.

La fouille a permis de reconstituer les différents états du mastaba, de relever les marques inscrites sur blocs de la chapelle (une cinquantaine), d'analyser les techniques de construction, d'inventorier le matériel et, enfin, de procéder à des restaurations, voire des reconstructions, qui permettent aujourd'hui de visiter le monument.

CASTILLOS, Juan José

The Predynastic Cemeteries at Mostagedda

A more detailed study of published Egyptian Predynastic cemeteries can yield valuable new information that was overlooked by the authors of earlier reports on those sites.

The general characteristics of the Predynastic cemeteries at Mostagedda are discussed here as well as the size and the contents of remarkable graves, possibly belonging to prominent members of the local communities who were buried there.

The evolution of the funerary practices at Mostagedda differs from that detected at other contemporary cemeteries elsewhere and might indicate variations in social or political conditions.

This paper summarises such conclusions which in some aspects agree with the results obtained in my previous research and by other scholars using different approaches to the subject.

CERUTI, Sabrina

The Identity of the Hippopotamus Goddess Reret

Among the minor deities of the Egyptian pantheon, the so-called hippopotamus goddess—really a composite lion/crocodile/hippopotamus deity—certainly is one of those who has the most abundant evidence. The goddess is indeed attested from the end of the Old Kingdom to the Ptolemaic-Roman Period, with a considerable growth of evidence from the New Kingdom on.

The fundamental vehicles of her popularity are amulets and votive

statuettes, generally without inscriptions, so they do not give much information on the goddess' role. That is deducible essentially by the iconographic analysis and, when known, by the archaeological context.

In contrast, the textual evidence is scanty, from which, moreover, we know that the goddess can bear three different names—Ipet, Reret and Taweret—and that, although they appear in different periods (and perhaps different places), they continue to identify the hybrid iconography of the goddess. Faced with such textual evidence it is justifiable to wonder if each name bears a specific role or character of the goddess, who is generally considered a protector for women and children. Only the analysis of the textual evidence relating to these three single names and their comparison could answer this question. Following this hypothesis we have gathered the textual evidence relating to her name of Reret, "Sow", to understand the role that the hippopotamus goddess holds under this specific name.

CHERMETTE, Michèle

Une page d'histoire de la nécropole thébaine

Les tombes 134 et 135 se situent sur un cône de talweg dont le sommet correspond à la tombe du vizir de Thoutmosis III, Ouser (TT 131) et la base s'élargit au niveau de la TT 55. Le manque de place et la bonne qualité du calcaire en strates expliquent les réutilisations postérieures de cet espace par des membres majeurs du clergé d'Amon à une époque où les concessions devaient dépendre de l'administration sacerdotale. Les fouilles de Mond et Myers n'ont pas mis l'accent sur les tombes proches, au nord de la tombe de Ramosé, mais ont noté l'exploitation en carrière à l'époque moderne. Fakhry a encore enregistré ces tombes qui ensuite, sont tombées dans l'oubli.

Nos travaux ont permis de dégager à nouveau la TT 348 noircie par le feu et reliée par un passage souterrain à la tombe de Bakenamon.

Une paroi de la tombe 347 a été redécouverte présentant un grand intérêt malgré le débitage d'une grande partie de ce monument.

La tombe de Tjaouenany est un bon exemple de sépulture familiale si ce n'est de confrérie quand aucune place n'est disponible dans la nécropole. Des fragments de cercueils du propriétaire de la tombe et de son épouse ont été trouvés. D'autres fragments de divers types de cercueils ont permis d'établir la présence de sépultures des XXIVe-XXVe dynasties.

CHLODNICKI, Marek

Stratigraphy and Chronology of the Central Kom at Tell el-Farkha (Eastern Delta)

The site of Tell el-Farkha, located in 1987 by an Italian archaeological expedition, was explored archaeologically in 1988-1990. A predynastic settlement was identified, as well as mudbrick architecture from late

predynastic to Old Kingdom times. Work was renewed in 1998 and continued in 1999. It provided confirmation of the stratigraphic sequences and major occupation phases of this site. The earliest settlement emerged along with the predynastic culture of Lower Egypt. This occupation phase can be contemporary with the Nagada II period or even earlier. The next phase is clearly linked with the Nagada culture. Mud-brick constructions of the Nagada culture settlement probably start from phase IId and continue through phase III. It appears that the transition between the Lower Egyptian culture settlement and that of the Nagada culture took place gradually without any dramatic events. Archaeological evidence for continued occupation in the Old Kingdom comes only from the top and the northern part of the central kom.

CHOUCRI, Sabri Ali

Trois saisons de fouilles dans la vaste nécropole de Silvago, dans le gouvernorat de Béheira

De 1992 à 1994, nous avons mené trois saisons de fouilles sur le site dit «Silvago», situé à 1 km à l'ouest des ruines de Kom Firin, dans la Béheira. On a distingué trois niveaux de sépultures superposées, sur trois mètres de profondeur, qu'on peut dater depuis la période saïte jusqu'à la période romaine tardive. Les résultats furent très intéressants.

Cette communication va vous faire part de mes découvertes qui consistent en: des sarcophages en calcaire; des cercueils en terre cuite anthropoïdes, ovoïdes et en forme de deux pots semi-coniques emboîtés; des amphores utilisées pour bébés; une urne en albâtre trouvée dans une construction quadrilatère en briques. Aussi, plusieurs squelettes sommairement momifiés et recouverts de stuc peint.

Bien que l'ensemble des tombes fut en grande partie pillé, un important mobilier funéraire a été mis au jour: une grande variété de céramique; des amulettes en faïence, or et pierres semi-précieuses; des *oushabtis* en faïence et terre cuite. Un tas d'objets en bronze: bracelets, boucles d'oreille, bagues, miroirs, des yeux incrustés de quartz et d'obsidienne, une coupe, un plat, un instrument chirurgical. Des objets en albâtre: vases; une urne; une statuette; une cuillère. Des masques de méduse en terre cuite peinte.

Nous espérons étudier tout ce matériel et le comparer à celui trouvé dans l'ancienne ville de Kom Firin et essayer de comprendre si les deux sites sont contemporains.

COLIN, Marie-Eve

The Sanctuary of Barques Project: Further Investigation on a Key Structure of the Egyptian Temple

Built as a closed naos with a façade and a door at the front or as an open-ended shrine, the Sanctuary of Barques or *St-wrt* may stand as a single

structure, as shown in Edfu and Dendara, or maybe combined with the rear shrine itself as in Philae.

Full achievement is reached in Graeco-Roman times with the Sanctuary of Barques at Edfu and Dendara seen as an independent unit, a microcosm of its own, surrounded by chapels within the main temple. In its function as a key structure, close relationships between each component part may become quite subtle indeed, resting on patterns of correspondences through the temple as a whole and also on a constant interacting process between the Sanctuary of Barques, the rear shrine and the surrounding chapels. As such, understanding the function of the Sanctuary of Barques in Graeco-Roman times may prove quite helpful for interpreting this structure in Middle and New Kingdom temples.

This project aims at studying every relevant aspect of this complex through inscriptions, symbolic location and correspondences between offering scenes and architecture, so as to highlight its coherence as an integrated unit, based on the conceptual structure of interaction of opposites involving symbolic patterns and reiterative features. In such context, myth and ritual, in their process of dynamic renewal, are to be considered as complementary modes of expression inherent to the character of Egyptian thought.

COOKE, Ashley

Mastabas of the Unas Causeway: The Practicalities of Design and Construction in the Old Kingdom

Most of the extensive research that has been carried out on Old Kingdom tombs centres upon their artistic content—the reliefs on their walls—but much less work has been dedicated to a study of the processes and decisions that were made when these tombs were constructed. Some scholars have shown interest in these issues when discussing individual tombs, but a thorough and comprehensive investigation has never been dedicated towards the constructional techniques, technology, materials and 'styles' of mastabas, and indeed who built them.

The Unas Causeway at Saqqara is flanked by a wealth of Old Kingdom tombs, among which it is possible to observe a progression in tomb decoration. I believe it is also possible to identify developments in tomb architecture and the techniques used to construct them. A detailed survey of a selected corpus of tombs in this area will allow a greater understanding of how these tombs were erected and what architectural decisions were made. It should then be possible to extend this study over a wider area and examine developments in building skills and the design of mastabas.

In particular, the arrival of the multi-roomed mastaba chapel in the mid Fifth Dynasty brought a greater degree of complexity to tomb layout. Shared characteristics in mastaba design constructional practices in the Memphite necropolis would suggest a fairly sophisticated organisation of labour while particular features—such as the slots carved between the bedding joints

within the mastabas of Kagemni and Kairer—provide tantalising evidence for tomb construction and tangible information concerning the building process.

CORTEGGIANI, Jean-Pierre

Les inscriptions hiéroglyphiques de la fouille sous-marine de Qâytbây

Depuis octobre 1994, le Centre d'études alexandrines a mené, au rythme de deux par an, une série de campagnes de fouilles sur le site sous-marin qui s'étend au pied du fort mamelouk de Qâytbây construit, comme on le sait, sur les fondations mêmes du célèbre Phare d'Alexandrie à partir de 1477; dans cette zone archéologique qui était en partie menacée par la construction d'un brise-lames, on a pu inventorier à ce jour près de 5000 blocs antiques gisant entre 5 et 8 m de profondeur.

Dans ce chaos de blocs qui, vu leur situation, proviennent donc pour la plupart, du monument mythique qui comptait au nombre des Sept Merveilles du Monde, un certain nombre se sont révélés être des remplois d'époque pharaonique : ce sont essentiellement des sphinx, des colonnes, des fragments d'obélisques et des blocs architecturaux qui, d'après leurs inscriptions, s'échelonnent de la XII^{ème} (sphinx de Sésostri III) à la XXVI^{ème} dynastie (deux blocs architecturaux au nom d'Apriès).

Bien que ne datant pas de la même époque, ces blocs inscrits ont malgré tout un point commun puisqu'ils semblent tous avoir la même origine héliopolitaine, les noms de la grande métropole religieuse de Basse Égypte et de ses dieux étant le seul toponyme et les seuls noms divins à figurer dans leurs inscriptions.

Au milieu de cette collection disparate, quatre obélisques fragmentaires et deux bases d'obélisques datant tous de Séthi I^{er} constituent un ensemble particulièrement intéressant.

COULON, Laurent

The "Sanctuary of Shentayt" in Karnak: Gods and Priests of the Osirian Mound

The work in progress on the decoration of the "Osiride catacombs" at Karnak, a Ptolemaic building erected in the north-eastern area of the temple as a part of the cemetery where Osiride figurines were buried (see the paper of Fr. Leclère), has led to the identification of most of the gods associated with Osiris of Coptos in this *abaton* called the "Great Place". These divinities involved in the mysteries can be identified as the gods of the "Sanctuary of Shentayt" as listed in the description of the Khoiak rites in Dendera. Although the links between Osiris of Coptos and the goddess Shentayt are well known through the texts of the so-called "Cuve de Coptos", their association in Karnak has received but little attention. However, several sources can supply

evidence for the existence of a "Sanctuary of Shentayt" in this area. In addition to the representations of the goddess and of her colleague Merkhates in the catacombs and in the contiguous chapel of Osiris of Coptos, the statues of several Theban priests, found by Legrain in the *Cachette*, mention their activities in this sanctuary. Besides the well-known monument of Ahmes son of Smendes (Cairo JE 37075), the statues of Khnemibremen (JE 36918), a priest "who knows the mystery of the secret work" (i.e. the making of the Osiride figurine), and Osoroeris (JE 37134) "servant of the Sanctuary of Shentayt", provide precious indications, which, compared with other new documents, give us a better idea of the locations and of the actors of the Osirian festivals in Karnak.

EL-DAMATY, Mamdouh M.

Die Treppe des Hinaufsteigens zum Dach des Tempels von Dendera im Neujahrsfest

In seinem Buch—Dendara et le temple d'Hathor—erwähnt F. Daumas, daß die westliche Treppe im Tempel von Dendera die Treppe des Hinaufsteigens zum Dach des Tempels am Neujahrsfest gewesen sei. Diese These wird bis heute immer wieder übernommen. Wenn man aber die Inschriften und die Architektur der beiden Treppen des Tempels und die Szenenverteilung auf den Wänden des Kioskes, in dem die Zeremonien des Neujahrsfestes durchgeführt wurden, genauer betrachtet, stellt man fest, daß die östliche Treppe diejenige des Hinaufsteigens zum Dach war.

DARNELL, Deborah

Predynastic and Pharaonic Activity in Kharga Oasis and Beyond: New Ceramic Evidence from the Desert Routes

The Theban Desert Road Survey has begun exploring the connections between the Nile Valley and Kharga Oasis. The material discovered thus far augments and supports our findings in the Theban Western Desert, suggesting a much higher level of early activity than had heretofore been supposed.

Direct contact between the Nile Valley and Kharga during the late Predynastic through Early Dynastic period is suggested by the presence on the high plateau of vessels in both Nile Valley and oasis fabrics. The same combination of oasis- and valley-produced vessels, but dating to the Middle Kingdom through late Eighteenth Dynasty, occurs at a newly discovered site in the middle portion of the desert between the northern Thebaid and the northern part of Kharga. Clearance of one of a group of three drystone structures revealed a two-room building of Seventeenth/early Eighteenth Dynasty date. Remarkably undisturbed, this structure yielded not only numerous portions of amphorae and other vessels used for storage, but also

a number of mud jar-seals, many preserving the remains of stamped impressions. One of these indicates that the contents of the vessel it once capped were intended as military rations. Such provisions may have come out of the oases as well as the Nile Valley. In fact, the variety of pottery forms manufactured of oasis fabric, particularly for the late Second Intermediate Period--New Kingdom, suggests the existence of a major pharaonic habitation and ceramic production site in the southern oases, quite possibly in Kharga Oasis, that has yet to be discovered.

This paper will also discuss the relationship between certain handmade and incised "oasis ware" vessels and Nubian ceramic traditions.

DARNELL, John

The Pony Express and the Origins of the Alphabet in the Egyptian Western Desert

There is considerable evidence for a courier service along Farshût Road, connecting ancient Thebes through the Western Desert with points north and west. An inscription in the Wadi el-Hôl mentions "the chief of the horse stable 'its-fetchings-are-frequent,' Panany." Nearby is a depiction of a horse and rider. R. Caminos, writing of the letter P. Berlin 10463, sent from the mayor Sennefer at Thebes to the farmer Baki at Hou, surmised that the letter itself had travelled originally across the Farshût Road. At the Theban terminus of this road, at the site of our discovery of the remnants of an early Seventeenth Dynasty chapel, the Theban Desert Road Survey found the fragments of a stela of the high priest/general/king Menkheperre. Those fragments, and a stela of the same ruler from another point on the road, show that this track had been called "the Road of Horses" during the Twenty-first Dynasty. Considered together with Diodorus Siculus' recording of the existence of one hundred horse relay stations between Memphis and Western Thebes, these bits of information strongly support the conclusion that the main Farshût Road was in antiquity a major postal "pony express" route.

This paper will discuss the primary textual and archaeological evidence for the courier system. In the vicinity of the Wadi el-Hôl are enormous mounds of organic debris and pottery "cemented" together in a matrix of animal dung, which almost certainly represent the sweepings from stabling areas. These unusual mounds begin to accumulate first in the Seventeenth Dynasty, at one site deposited atop a thick, dungless layer of late Middle Kingdom pottery. At that time, before the introduction of mounted couriers, mail runners travelled the Farshût Road on foot: just last season, we discovered the signatures of "express couriers" and a "royal messenger" at the Wadi el-Hôl. Even more significantly, these couriers are associated with a "general of the Asiatics," one or more of whose foreign charges was apparently responsible for two extraordinary Early Alphabetic inscriptions at the site. Palaeographic support for this conclusion also points to an even earlier date for the prototype of the alphabet, sometime during the first half of the Middle Kingdom. Some of the

letters carried on the Farshût Road may thus have been some of the earliest writings ever composed in an alphabetic script.

DASZEWSKI, W.A.

Marina El-Alamein: Excavation of an Unknown Coastal Town of the Graeco-Roman Period

In 1987 an Archaeological Mission of the Polish Centre of Archaeology started a systematic exploration of a hitherto unknown ancient settlement—most likely a small coastal town—located 96 km west of Alexandria, on the site of a modern tourist resort of Marina el-Alamein. Polish researches were mostly concentrated in the necropolis and on preliminary architectural documentation of rescue excavations within the town, carried out by an Egyptian team.

A large number of tombs representing an extraordinary variety of forms was uncovered, including above-ground structures (pillar, sarcophagi and column tombs) and underground tombs (large hypogea) with or without above-ground structures. In the town, several private houses and public buildings were identified. Some tombs and houses were then consolidated and restored by a joint Polish Egyptian Mission.

DAVOLI, Paola

New Archaeological Evidences at Bakchias (Kom Umm el-Athl-Fayyum)

Bakchias is a Graeco-Roman town in the north-eastern area of the Fayyum. Papyrological evidence coming from the archaeological research of the Egypt Exploration Fund (1896) and from illicit excavations of the beginning of this century attest its existence between IIIrd century BC and IV century AD.

Since 1993 a joint archaeological expedition of Bologna and Lecce Universities has been annually leading excavations in a residential area of the town and in the major temple dedicated to Soknokonneus. Since 1996 the research has been concentrated inside the temple, a mud brick building of 40 x 20m and 10m high, and in the area in front of it. A number of buildings of different periods have been revealed in front of the temple, including the foundations of a Roman pylon in sandstone. It has been estimated that it was originally about 9.50m high and 17.80m long.

Several important objects and papyri belonging to the equipment of the temple were found spread all over the area as a result of ancient and modern plundering.

DAWSON, Julie

Taking Care of Sennefri: Problems and Practicalities

It is possible to carry out a responsible conservation project on an Egyptian monument within the restricted resources of a very small foreign mission, but considerable flexibility is required. Using the example of the epigraphic survey and clearance of Theban Tomb 99 (Sennefri) carried out by the University of Cambridge Theban Mission in short annual seasons from 1992 onwards, this paper will look at the challenges presented from the conservators' point of view.

The conservators must work within the ethical framework of conservation practice, giving prime importance to securing vulnerable parts of the structure with minimal intervention and providing appropriate preventive care for the artefacts which will remain in long-term storage in the tomb. But the epigraphic and archaeological documentation of the tomb is in some senses the most important part of its long term preservation, so conservation treatment priorities are also determined by the needs of this process. These two factors have to be reconciled. The conservators also contribute directly to this documentation by recording the condition of the tomb and its contents and examining of the materials and technology with which they were constructed.

DE SIMONE, Maria Costanza

On a Tomb Discovered at Qurnet Muray (Luxor)

In 1997, the Supreme Council of Antiquities discovered a new tomb on the hill of Qurnet Muray on the west bank of Luxor. The tomb is located near the one belonging to the Viceroy of Kush, Huy, and the tomb attributed by Egyptologists to the Viceroy Mermose. I was lucky enough to be in Luxor in the period of the discovery and visited the work, since unfortunately after one month, the excavation was definitively closed. In my opinion, some elements of this tomb point to it belonging to the Viceroyalty of Kush. For this reason, I hope that it will be possible to reopen the excavation of this interesting tomb, giving us further information about this important period of the history of ancient Egypt. Finally, on this occasion, I want to point out the importance of the recovery of the entire archaeological area of Qurnet Muray.

DE SOUSA, Rogério Paulo Nunes Ferreipa

The Effect of Anthropological Notions on Therapeutic Practices: Comparative Study between Pharaonic Medicine and Modern Therapies

With this study we intend to prove the connection between therapeutic practices of one specific culture and the representations of the human body.

Given the extraordinary amplitude of this theme and our own limited documents relating to ancient Egypt medical practices, we will give special focus on heart therapies with the contribution of two special documents: Ebers Medical Papyrus and the OMS directives relating to heart diseases.

With the analysis of these documents we will outline the concepts of man that are underlined in the treatment of heart diseases formulated by ancient Egypt priests and by modern doctors.

Differences detected will give an important contribution to modern therapeutic practises relating to heart therapies. We intend to prove that we can bring ancient knowledge into our contemporary science, and thus develop our own practices. In fact, this study may contribute to designing a new therapeutic approach to be applied on victims of heart diseases.

EL-DEEB Asmaa A., Ahmed A. EL-REFAIE and Dalia A. MELEGY

The Fungal Contamination in Petosiris' Tomb and the Way of Treatment

Petosiris' tomb is a family tomb for the priest Petosiris, his brother and their two children. Petosiris was a great priest in Hermopolis when Ptolemy I was judge of Egypt. Reliefs of Petosiris' tomb contain educational advice leading to a great caring of the Egyptian parents for their children. The tomb is made from limestone and built according to the style of temples, but it was found that there are walls built between columns. The ancient stone can be infected by micro-organisms either by environmental pollution or by mechanical and human handling of antiquities, both outdoors and inside tombs and museums. This microbial infection may lead to changes of the features of the stone. Petosiris' tomb was microbially infected, indicated by the spreading of black spots all over the walls of the tomb, in the outer room (the entrance) and the inner room (burial room). These spots increased in the middle of the walls (especially in the inner room) about one and half meters from the earth's surface. Microbiological studies of these spots and the causes of their occurrence showed that the infection was a result of one kind of micro-organism (one fungus). This fungus grows slowly and causes these spots which increase with time. After making laboratory experiments, we insured that the suitable way and material of treatment is the injection method by a fungicide using a special syringe (Hamelton syringe). Using this method, we injected a calculated dose of the fungicide to every spot without harming the stone or exposing it to reinfection.

DELANGE, Elisabeth

Fouilles françaises à Éléphantine

Aujourd'hui, l'île d'Éléphantine est généreusement documentée ... seules les fouilles françaises restent à ajouter à la recension. Quatre campagnes eurent

lieu sur une mince bande de terre au sud de l'île, entre 1906 et 1911, dirigées par Clermont-Ganneau.

À l'aide des archives et grâce au catalogue des objets, il s'agit d'ordonner aujourd'hui toutes les données hétérogènes:

- Le partage de fouilles au Louvre en 1908: 38 caisses, malheureusement non inventoriées à leur arrivée;
- Béliers sacrés et ossements furent envoyés au Museum d'histoire naturelle de Lyon;
- Les archives concernant les fouilles sont conservées à l'Institut de France;
- Jean Clédat appelé sur le site par son maître, brusquement touché par la maladie, n'a jamais pu faire connaître son travail d'une grande acuité scientifique, dont les archives furent offertes au Louvre en 1986;
- Dans les années viiigt, une volonté de mise en dépôts de la Direction des musées, entraîna une grande dispersion des objets. Nombreux sont les musées de province et les Institutions où Éléphantine est représentée. Mais, certaines collections furent détruites pendant la Guerre ...

Que révèle alors le catalogue? : la provenance (dont la fameuse cachette comprenant des «objets de toute nature»), le *Chnoubeum* avec la description très circonstanciée de Clédat, des éléments de datation, des pièces originales, et au niveau du travail concret d'un musée, des raccords et identifications.

DELATTRE, Alain

Les termes égyptiens désignant le scorpion

La langue égyptienne connaît essentiellement deux termes pour désigner le scorpion: ce sont les mots *ouchat*, qui est en usage dès la XVIIIe dynastie, et *dj3rt*, qui est attesté dès l'Ancien Empire. Tous deux ont survécu en copte, mais dans des «dialectes» différents: *ouohe* en sahidique et *kjlè* en bohairique.

Cette répartition géographique nord/sud des deux termes me semble déjà décelable au Nouvel Empire. À cette époque, les documents qui proviennent du sud de l'Égypte, comme le P. Chester Beatty VII, utilisent généralement le mot *ouchat*; les textes originaux de Basse-Égypte, comme le P. Leyde I 349, préfèrent employer le mot *dj3rt*. L'examen des attestations de ces deux mots suggère que le mot *ouchat*, un «néologisme» originaire de Haute-Égypte, a progressivement supplanté dans cette région le mot ancien *dj3rt*. Cette recherche indique que la répartition dialectale propre à l'époque copte est déjà perceptible, du moins en partie, au Nouvel Empire.

DEN HEIJER-NAWROCKA, Hanna

Verb Focus and its Formal Correlates in Older Egyptian.

The objective of our paper is to present some results of our investigation concerning morpho-syntactic strategies and signals which were used for coding the pragmatic function of focus in verbal sentences in Older Egyptian. More specifically we will concentrate on the grammatical formal correlates of focus function with the scope on the verb only. The methodological framework of our investigation derives its main definitions, notions and concepts from the grammar of focus as systematized by the school of Functional Grammar established by the late S.C. Dik on the one hand. On the other hand, we use comparative material and cross-linguistic evidence from languages typologically akin to the Ancient Egyptian language as regards the ways in which they incorporate the ethical features of focus into their grammatical inventory.

We hope to be able to demonstrate how different ethical properties of focus function could trigger certain morpho-syntactic strategies and how the focus system co-operates with other grammatical systems. We will also pay attention to the grammatical constraints, which besides pragmatic considerations, could affect and limit the speaker's choice of one or another grammatical strategy to signal underlying pragmatic functions.

DERRIKS, Claire

Le disque solaire et sa variante monoptère à travers les monuments égyptiens

Le disque solaire ailé, apparu à l'Ancien Empire, dans les temples de Sahourê et de Niousserrê, est représenté de manière constante sur les monuments égyptiens jusqu'à l'époque romaine. Ce motif semble au fil du temps perdre son caractère exclusivement royal des origines.

Sur les stèles du Moyen Empire, le disque solaire ailé est toujours en étroite relation avec la figure royale ou avec la titulature royale. À la Troisième Période intermédiaire, en revanche, le motif s'est généralisé sur les stèles funéraires des particuliers. Dans l'intervalle, une variante monoptère du disque solaire a vu le jour au Nouvel Empire, rompant avec une représentation symétrique, tant sur des monuments royaux que sur des stèles privées.

L'analyse montre que le champ d'application de cette variante monoptère du disque solaire est plus large que ne l'avait avancé Auguste Mariette et que la chronologie qu'il avait proposée (Thoutmosis IV) n'est plus d'actualité. La trace de cette variante peut être suivie jusqu'à la XXIIe dynastie.

La représentation de l'astre diptère ou monoptère est envisagée en parallèle avec celle d'autres figures ou motifs ailés qui appartiennent aussi au monde solaire et qui voient le jour au cours du Nouvel Empire. L'analyse mettra en évidence la place des ailes dans les textes et dans la mythologie.

DIELEMAN, Jacco

Tradition and Dialogism in Graeco-Egyptian Magic and Literature

Not long before 1828, some Egyptian farmers found a set of ancient papyrus rolls and codices somewhere in the hills around Luxor. The papyri were preserved almost complete and had probably formed part of a library in Roman Egypt. As they were sold via the black market to Anastasi and subsequently found their way to several European museums, the find has been dispersed. Indeed, nothing is known about the archaeological context, and the allotment of several texts to the library remains problematic to this day. Nevertheless, nine manuscripts can with certainty be ascribed to the library. These texts can be interpreted as magical and alchemical handbooks. Because of its thematic coherence, the library is often referred to as 'The Theban Magical Library'.

The most interesting and, at the same time, the most complicating aspect of the library is its bilingual character. The texts are written in Egyptian (Demotic and Old-Coptic) and Greek, both languages being used alongside each other in the same manuscript, in the same spell or even in the same line. At the same time, Egyptian, Greek and Jewish gods and demons are called upon for divine assistance. This bilingualism invites Egyptology to ask interdisciplinary questions about the sociological and religious context of the library. Who were the compilers of this library? The people who were interested in this mixed batch of magical treatises were certainly fluent speakers of both languages and must have had a thorough knowledge of religious life within different ethnic communities.

This presentation will be an interim report on PhD research at Leiden University and will discuss the library within the historical context of Graeco-Roman Egypt, focussing on the relationship between tradition and change. Reference will be made to contemporary literary texts from Egypt that have also been written in Demotic and Greek, to illuminate the problem of acculturation in Graeco-Roman Egypt. In this way a plea is made for an interdisciplinary approach to these texts and to the question of acculturation in Graeco-Roman Egypt in general.

DOBREV, Vassil

Builders' Inscriptions from the Pyramid of Pepy I (VIth Dynasty)

During the winter season of 1987, the French Archaeological Mission at Sakkara started an excavation at the south-east corner of the pyramid of Pepy I with the idea to clear it completely. This was done in March 1999, the Mission being involved also in the discovery of numerous pyramids and temples of the king's queens. After 12 years of work, we have collected more than 1600 marks painted in red and black, sometimes in ochre, brown and

yellow. Most of them come from the backing stones and the internal step body of the pyramid, but we also found some at the back side of the casing stones and inside the surrounding wall.

These inscriptions give us precious information about life at the building site: moving and levelling stones, setting the zero level and the slope of the pyramid, construction dates, priests' phyles, workers' gangs. The names of more than 40 persons who organized and controlled the work at Pepy's pyramid were identified: viziers (Zetchu, Hotep, Neferptah), king's sons (Tetiankh, Titi, Nebwy-ankh-her-khuef, Penmedu, Irenes, etc.), sole companions (Nykauizezi, Nefersechemptah, Zezi, Imbi, Djedi, etc.) and many others. The most spectacular discovery was the name of Inti, the architect of the pyramid. For the first time, we have an Old Kingdom pyramid with a signature!

DOBROWOLSKI, Jaroslaw

Theory and Practice: Charters at Work in ARCE's Conservation Projects

The conservation projects carried out by ARCE, and funded by grants from the U.S. Agency for International Development, are very diversified. The sites differ in location, character and period; the scope varies greatly. The work is done by Egyptian, American and international teams. A common factor is the set of standards that all the projects must follow, and which are the basis of ARCE's conservation philosophy. These are: international standards, notably the *Venice Charter* and documents based on it; and the U.S. guidelines as appropriate, e.g. *The Secretary of Interior's Standards for treatment of historic properties*. With over twenty projects either completed or in the stage of advanced field work, it can be examined how the general standards translate into actual conservation procedures. The presentation illustrates the application of ARCE's conservation philosophy in the implementation of its different projects. The main issues discussed are: maintaining the integrity of the monument, treatment of past alterations, reversibility of treatment, distinguishing restored parts, sensitivity to the setting, assuring permanent maintenance, environmental protection, presentation and public information. The focus of the presentation is on the projects dealing with prehistoric, dynastic, and Graeco-Roman periods, but it also highlights how the procedures used on these projects reflect general issues and concerns not contingent on any particular period.

DODSON, Aidan

The Burial of the Members of the Royal Family during the Eighteenth Dynasty

During the New Kingdom, it is not until the Nineteenth Dynasty that a series of clearly identifiable tombs belonging to members of the royal family are known. This is particularly the case with royal sons, the first known New Kingdom decorated tomb of which dates to Ramesses II (KV 5), and may be linked with the major change in their status around the end of the Eighteenth Dynasty. This paper considers the evidence for the interments of royal wives, sons and daughters during the Eighteenth Dynasty. It notes a shift from independent sepulchres during the earlier part of the dynasty, towards communal interments and/or within the tomb of the king himself. It concludes, *inter alia*, that KV 42 is unlikely to be that of Queen Meryetre, and that KV 39 was a communal burial place for the families of Amenophis II and Tuthmosis IV

DOLINSKA, Monika

Temple of Tuthmosis III at Deir el-Bahari: Iconographic Programme

This paper summarizes the effects of 20 years of work on ruined remains of temple reliefs. During these years, thousands of carved and polychrome fragments of wall decoration have been analysed, classified and a large percentage of them have been joined together. The process of connecting isolated fragments started with small pieces, and in many cases, has led to finding connections between reconstructed scenes and locating them in specific rooms of the temple. As a result, a partial reconstruction of the programme of iconography has become possible. The main themes of decoration, apart from normal ritual activities of the king, are the Beautiful Feast of the Valley, the king's cult, the cult of king's forefathers, the Ritual of Amenophis I, and the divine Ennead. A detailed description and an attempt to analyze scenes will follow.

D'ORAZIO, L., G. GENTILE, C. MANCARELIA, E. MARTUSCELLI, G. ORSELLO, and A. TAGLIALATELA

The Nature, Origin and Technology of Textile Artefacts Recovered from the Ancient Town of Bachias (Egypt)

Fragments of archaeological textile artefacts recovered from the ancient town of Bachias (Egypt) have been investigated to identify constituting fibres, to determine the technology used for their manufacture and to evaluate their state of conservation.

A morphological, structural, spectroscopic and molecular characterisation of the recovered textiles has been successfully carried out.

In particular the nature of the fibres has been recognised by means of WAXS and confirmed by SEM on fibre samples which have undergone appropriate cleaning procedures. The degradation level of the cellulosic fibres has been related to their average polymerisation degree calculated by viscosimetric analysis.

For the coloured fragments the dyes have been removed from the fibres and their identification has been carried out by means of spectroscopic analysis in the visible region.

Finally for each artefact the direction of the thread torsion imposed by the spinning process and the kind of weave have been identified.

DUNAND, Françoise, Jean-Louis HEIM et Roger LICHTENBERG

La nécropole de 'Aïn-Labakha: Recherches archéologiques et anthropologiques

Entre 1994 et 1997, notre équipe a collaboré avec l'OAE pour l'étude du matériel archéologique et des restes humains découverts par les inspecteurs Adel Hussein Mohammad et Bahgat Ahmad Ibrahim sur le site de 'Aïn-Labakha, à 30 km au nord de la ville de Kharga. Creusées dans l'escarpement occidental, bien au-dessus du niveau des champs cultivés, les tombes, à l'abri de l'humidité, ont permis une excellente conservation des corps et des objets. Ces derniers, assez comparables au matériel trouvé à Douch, dans le sud de l'Oasis, autorisent une datation entre la fin de l'époque ptolémaïque et les premiers siècles de l'occupation romaine. Les parures de momie, cartonnages et masques, souvent en bon état, indiquent la persistance des croyances funéraires traditionnelles. La présence de bijoux retrouvés fréquemment sur les momies ainsi que de nombreux objets en verre paraît indiquer un «niveau de vie» relativement élevé.

La population totale a pu être évaluée à environ 500 individus, dont une proportion importante à l'état de momies. 60 d'entre elles ont été étudiées et, en particulier, radiographiées. Environ 20% étaient encore complètement bandelettées, d'où l'intérêt de l'étude radiologique qui a permis de respecter leur intégrité. La qualité de la momification est bonne, avec même, pour certains individus, usage de la «1re classe». Les maladies diagnostiquées sont la bilharziose, la tuberculose, l'athérome artériel... La carie dentaire, pratiquement absente à Douch, apparaît nettement plus fréquente ici, témoin d'une alimentation plus riche en sucres. L'étude anthropologique confirme les résultats fournis par les autres sites de l'Oasis, indiquant qu'il s'agit d'une population de type méditerranéen gracile.

DuQUESNE, Terence

Early Interrelationships between the Egyptian Jackal Deities

Before the end of the First Intermediate Period, several deities associated with the jackal or a similar wild canid were worshipped in Egypt. The most important of them are Anubis and Upwawet, who have a significant role particularly in funerary ceremonies and in kingship rituals respectively. The god Khentyamenti (‘Foremost of the Westerners’) is attested in the Archaic Period and becomes important during the Old Kingdom as a funerary deity of Abydos and as a function of Anubis and Osiris. Another deity, Sed, appears to be connected with the Sed-Festival. Wepiu (‘The Opener’) is cited several times in the Pyramid Texts. Also, the rarely-encountered hieroglyph of a mummiform jackal may represent an otherwise unknown deity.

There are jackal goddesses, too, who deserve study. First is Anupet, goddess of Cynopolis, the female doublet of Anubis who is first encountered on one of the Mycerinus triads. Qebhowet (‘The Celestial One’) is found in the Pyramid Texts as a daughter of Anubis.

We have other evidence of demigods or spirits in jackal form. The *shemsu-Hor* (‘Acclaimers of Horus’) have connexions with Upwawet or Anubis and play a part in the Sed-Festival. The Spirits of Pe and Nekhen, representing the two Lands of Egypt, are shown as falcon- and jackal-headed respectively. The guardians of the Jackal Lake in the netherworld, where the king is purified, are discussed...

The interrelationships between these multifarious deities and spirits are analysed. They clearly belong to the same, or a closely related, archetype, and they provide a microcosm of Egyptian religious belief and practice. The jackal-deities span the polarities of male and female, the Black and the Red Lands, life and death, birth and rebirth. Their role is crucial in royal ritual, the king's ascent, as protectors of the tomb, and they have many other functions.

EATON-KRAUSS, Marianne

Restorations and Erasures in the Post-Amarna Period

The restorations of inscriptions and representations, defaced by Akhenaten's agents during the reign of the “heretic King”, and the attacks on Akhenaten's monuments (as well as those of his successors Tutankhamun and Ay) are related phenomena characteristic of the post-Amarna period. Earlier studies have been careless of the distinction that must be made between officially commissioned activities and those undertaken by loyalistically motivated individuals with official sanction. This distinction is crucial for understanding the progress of the “restoration” through the end of Dynasty XVIII and into Dynasty XIX. With this in mind, a variety of seemingly disparate data (such as temple relief, the decoration of Theban tombs, royal and non-royal statuary at Karnak Temple and the careers of men involved with the actual work of

restoration) will be examined with a view to establishing a relative chronology of the post-Amarna years.

EIGNER, Dieter

Tell Ibrahim Awad: A Sequence of Temple Buildings from Dynasty 0 until the Middle Kingdom

Archaeological sites of the Nile Delta are in imminent danger of being lost forever, covered and/or destroyed by the ever growing modern settlements, by agricultural or other activities. Archaeological research, ranging from identification of sites to full-fledged excavation is as important as protection and conservation of visible monuments.

Tell Ibrahim Awad in the Eastern Delta was first documented in a survey by Amsterdam University in 1985. Since 1988 The Netherlands Foundation for Archaeological Research in Egypt has been conducting excavations.

Excavations revealed cemeteries from Dynasty 1 and the First Intermediate Period/Middle Kingdom and portions of settlement from the Final Late Chalcolithic to Old Kingdom. The most prominent feature is a sequence of temples/shrines dating from Dynasty 0 until the Middle Kingdom, which all arose on the same sacred site. Immediately under the surface of the Tell appeared massive mudbrick foundations of a temple dating to Dynasty 11. Under the sanctuary which is marked by a deep pit filled with clean sand, a sequence of nine consecutive temples/shrines was found. All of them are mudbrick buildings of similar plan and very modest size.

The Old Kingdom shrine houses 12 deposits of ceremonial and votive objects. It is one of only three known examples of a 'preformal' temple of this period. The shrines of Dynasty 0 are the oldest mudbrick temples so far discovered in Egypt. When excavation reaches the *gezira* there are good chances of finding the traces of the wood and mat construction of a *pr-nw*.

EISENBERG, Jerome M.

Some Unrecorded Egyptian Pantheistic Deities from the Graeco-Roman Period and Numismatic Parallels

As a follow up to the author's paper on a Late Period pantheistic Reshep at the last Congress, he will illustrate several examples of previously unattributed pantheistic deities, including such unusual types as a Dionysos-Harpokrates-Helios bronze figurine possibly representing Ptolemy IV and a terracotta lamp handle relief of Harpokrates in the guise of Nemesis. The relationship of pantheistic deities in sculptural examples to types illustrated on Ptolemaic and Alexandrian coins will be discussed, especially those related to Ptolemaic rulers. The complex pantheistic coin types in the Ptolemaic Period

appear to be limited to a single issue of Ptolemy IV with the ruler as a deity with the attributes of Ammon, Helios, Hermes, Poseidon, and Zeus. The Alexandrian coinage issues start with such relatively simple types as the Sarapis Ammon, Helios-Sarapis, and Zeus-Sarapis issued in the late 1st and early 2nd century AD and culminate with the complex Zeus-Ammon-Asklepios-Helios-Nilus-Poseidon-Sarapis type issued by Philip I in mid-3rd century AD. Yet, of the over 600 Graeco-Roman terracotta deity types and varieties catalogued by the author in his forthcoming *Encyclopedia of Egyptian Antiquities*, the pantheistic Egyptian terracotta figurines of the period are limited to a very few combinations of just two deities. There are, however, complex pantheistic bronze types for such deities as Bes, Harpokrates, and Osiris.

EMARA, Samia

Dangerous Action and Damages Caused by Weeds on Historic Architectural Buildings and Monuments: Method of Control

Weeds exist in the majority of open archaeological sites found in both upper and lower Egypt, and their existence causes great damage to monuments and architectural buildings (archaeological or historic) found or constructed in these sites, whatever the type of stone used. The forms of the damages are either cracks or fractures in the stone; in severe cases weeds cause fragmentation of weak stones. In the case of adobe structures, the damages are greatest because they lead to the destruction of these structures. There were several attempts to get rid of weeds along the last 50 years (mechanical methods), but all failed to solve this problem. To face this dangerous problem, we had to find other effective methods (chemical methods) which are based on applying herbicides; this method is the best way to get rid of weeds in archaeological sites. We conducted the first experiment in 1990 in Medinet Habu temple (Luxor), which showed good results; since then and according to our chemical controlling program we applied controlling programs in the following sites:

Luxor (Karnak Temple, Mut Temple, Medinet Habu Temple and Medamud Temple); El-Minia (El-Ashmunein); Aswan (Philae Temple and Kom Ombo Temple); El-Giza (Abu Sir Pyramids and Unas Temple); Cairo (Arab El-Hisn, Kisson Mosque and El-Daher Baibars mosque)

The applied programs showed successful results in getting rid of the weeds.

ERTMAN, Earl L.

The Identity of the King and Queen on Tutankhamun's Golden Throne

The golden throne of Tutankhamun (Cairo JE 62028) has been known for seventy-seven years since its discovery in the antechamber of KV62. Cartouches identifying the king as Tutankhamun and the queen as his wife Ankhesenamun are placed behind each of their heads. Some Egyptologists can more readily accept the inscriptional evidence rather than investigating the stylistic form of this royal pair which they feel is more subjective. More recently, a few researchers like Claude Vandersleyen have questioned the identity of the royal couple. At the Highclaire Castle conference in 1980 on the Valley of the Kings, Vandersleyen discussed these figures in his paper, 'Royal Figures from Tutankhamun's Tomb: Their Historical Usefulness'. He commented on another figure noting '... that a figure is more reliable than an inscription'. I agree with his comments.

In this study the male figure will be analysed illustrating that specific characteristics are indicative of a king other than Tutankhamun, proving that the throne was not originally created for Tutankhamun, but for another ruler. Once the identity of the king has been established it is somewhat easier to identify the queen. Comparisons will be furnished to support this thesis.

ESPINEL, Andrés D.

The Boundary Stelae of the Djoser Funerary Complex at Saqqara: An Interpretation

This paper analyses the function of the so-called "boundary stelae" of the Djoser Funerary Complex at Saqqara. These objects are studied in connection with the Sed Festival and the royal funerary practices. Boundary stelae probably delimited a funerary space, maybe the royal funerary complex, which was created or, at least, visited by the king during the Sed Festival. This interpretation derives particularly from the analysis of a relief from Niuserre's sun temple at Abu Ghurab, which reproduced a ceremony with some objects similar to the Djoser stelae related to the Sed Festival and the necropolis. The same action is repeated with some differences in one of the Osorkon's Sed Festival scenes from Bubastis.

Objects and symbols represented on Niuserre's relief and Djoser's "boundary stelae" also are studied and associated with some religious texts (Pyramid Texts, Ramesseum Dramatic

Papyri, etc) and epigraphic material (prosopography, reliefs, etc).

FAENZA, Barbara

"Amarna Phenomenon" in the Fayyum

The documentation examined in this communication comes from Fayyum and belongs to the Amarna Period.

From Gurob and Kahun come interesting documents of the monarchs Amenhotep III and Amenhotep IV/Akhenaten. From Gurob three wooden stelae and a black granite offering table dedicated by Teye to her dead husband were found, probably from a temple or a shrine dedicated to the cult of Amenhotep III. Gurob was of interest to the royal family continuously during the reign of Akhenaten, as objects found here testify, as does a hieratic letter addressed from Ipy, king's steward in Menfi, to Akhenaten (year 5) that explicitly documents the presence of the king in the city. From Kahun come two documents reused in later contexts. First is a fragmentary stone block representing Akhenaten with the double cartouche of the god Aten that probably was part of a temple dedicated to Aten. The second is a pedestal of a statuary group, in red granite, with the names of Akhenaten, Nefertiti and the daughters, Ankhesenpaaten and Makhetat, probably from an Aten temple. Although recovered in Kahun, it probably comes from Gurob because the interest of the royal family towards this city was great. Gurob was probably a center of a funerary cult of Amenhotep III and of a temple dedicated to the Aten by Akhenaten. From Kahun come also four papyri, one of which introduces a double-dating (year 27 of Amenhotep III, year 2-3 of Akhenaten) which opens further questions for the debate of the co-regency.

EL-FAKHARANI, Fawzi

The Pharaonic Port on the Mediterranean: Its Shape, Development and Importance

Egypt is endowed with several navigable water bodies. To the north of the country, we find the Mediterranean, which extends from Gibraltar to the west till Lebanon and Syria to the east. The Red Sea lies east of Egypt and stretches from north to south. In addition to these seas, we have the Nile, which runs through the country from south to north. It ended, in antiquity, in the seven branched Delta. Some of its branches fed freshwater lakes (e.g. Lake Mareotis which gets its water from the Canopic branch of the Delta).

These water bodies connected the different towns of Egypt with one another, and with the different countries abroad by means of Nile boats and seafaring ships. Therefore, it was necessary to have ports to give shelter to these boats and ships from tempests and storms when they were loading or unloading their cargo, and when the passengers were embarking or disembarking.

These ports are different in form and plan according to their locations, the

condition of the sites, and the period they were built in. Thus the ports on the Nile (e.g. the port of Kalabsha) were different from the ports on the Red Sea (e.g. the port of Sao) although both the Nile and the Red Sea extend from north to south.

On the other hand, we find that the Pharaonic ports on the Mediterranean conform in their shape and plan with the Pharaonic ports on Lake Mareotis taking in consideration that both the Mediterranean and Lake Mareotis extend from west to east. In spite of this fact, we find that since the conquest of Egypt by Alexander the Great, the Mediterranean and Lake Mareotis took a different shape and plan during the Ptolemaic, Roman and Byzantine periods. Why do we find all these changes in shape of the ports of Egypt? This is what we have to try to find an answer for.

FALTINGS, Dina A.

Excavations in Buto 1993-1998

In 1993 the German Archaeological Institute in Cairo resumed its excavations in Tell el-Farain/Buto in the Governorate of Kafr el-Sheikh. After working in three test-trenches, the excavations were concentrated again on the area north of Sekhmawy at the western edge of the kom from 1994 on. In 1997 the temple area also was archaeologically probed.

The new excavations from the region north of Sekhmawy yielded more information about the transition from late Prehistory to Early Dynastic, but mainly threw new light on the first stage of this settlement, which clarified the chronological frame and social structure of this town in the first quarter of the fourth millennium BC. The work in the temple uncovered a Ptolemaic sacred lake and some more information about the Saite construction.

FANTECHI, Silvana Elena

Women and Gift-Giving in Ancient Egypt

The practice of gift giving in pharaonic Egypt is recognized and performed among members of the royal elite. Women's roles in matrimonial agreements carried out by the Egyptian state must be studied with the aim of explaining the exchange patterns and their significance. These marriages helped to preserve the political order and to grant economical advantages; therefore, they became important instruments for the consolidation of royal power and reinforcement of political and hierarchical links among the parties involved.

FATHY, Ashraf M.

Phonetic Patterns of Arabized Egyptian Words: a Comparative Phonetics Approach

This paper examines the forms of alterations which affected the Egyptian words embodied in Arabic. These alterations seem to have influenced such words in two major ways:

1. Modification of the word-structure by changing the order and/or the number of consonants through such phonetic phenomena as metathesis, assimilation, gemination, etc.
2. Replacement of one consonant by another.

Thus arabized Egyptian words are categorized here according to these styles and their sub-patterns in detailed tables and hints of analysis and conclusions.

FATHY, Ashraf M.

Identical Familial Terms in Egyptian and Arabic: a Sociolinguistic Approach

A thorough scrutiny of the main corpuses of ancient Egyptian and Arabic vocabularies reveals the fact that thousands of Arabic words were derived from, or shared the same origin with, Egyptian equivalents. By comparing the variations of forms and meanings which such words owned and acquired, one can understand what otherwise is obscure about many expressions in both languages. This applies especially to certain initial and major spheres in which conceptions and their outspoken forms must have been molded very early. One of these spheres is the wording of family, its members, their relationships and other relevant themes like pregnancy, birth, circumcision, heritage, etc. Here we may discern, or at least get a better understanding of, such ambiguities as why does *tefl* mean 'child' in Arabic while it means 'orphan' (*tfn*) in Egyptian? Which parent's death prompts orphanhood? Here, with these topics and others, linguistics can help to attain a deeper access into both societies concerned.

FEKRI, Magdi Mohammed

Une nouvelle enquête sur les tombes civiles et anonymes de la Vallée des Rois

Bien que consacrée nécropole pour l'inhumation des souverains du Nouvel Empire, la Vallée des Rois comprend également dans ses flancs un certain nombre de sépultures de particuliers, voire de tombes enregistrées, jusqu'à présent, comme étant "anonymes".

Pour celles dont on connaît les propriétaires, la liste ainsi que l'examen du

matériel archéologique et épigraphique permettent déjà de mieux mettre en évidence les relations qui existaient entre ces personnages et la cour royale, et donc, de mieux comprendre la faveur *post-mortem* dont ils ont bénéficiée.

Pour les tombes "anonymes", un certain nombre de remarques peuvent être résumées à partir des fouilles et des constatations qui ont été faites par les archéologues et les historiens: s'agissait-il de tombes également aménagées pour des proches du roi régnant, ou bien de sépultures royales, voire princières, dont les projets ont avorté?

Notre propos, s'appuyant sur toutes les informations rassemblées par nos prédécesseurs, se fondant également sur l'étude architecturale de ces tombes ainsi que sur le mobilier funéraire qu'elles ont pu livrer au cours des fouilles et qui est le plus souvent dispersé dans les collections égyptologiques internationales, a pour but de faire le point des connaissances acquises. C'est à partir de ces données, de leur analyse et des observations que nous y ajouterons, qu'on pourra suggérer, dans cet exposé, quelques retouches à certaines pages de l'histoire de la Vallée des Rois.

FEUCHT, Erika

Progress on the Ramesside Tomb Project

From 1978-1993 the Deutsche Forschungsgemeinschaft funded a project by Jan Assmann of the University of Heidelberg to clear, record and publish Ramesside Tombs in Thebes. The results of seven of these tombs have been presented in the newly founded series "Theben", and six more have been cleared, recorded, and publication of these is in progress.

The discovery by Friederike Kampp-Seyfried of a new tomb in Dra abu'l Naga dating from the time of Haremhab, the tomb of the high priest Parennefer, with its sensational reliefs, the new reliefs discovered by Karl-Joachim Seyfried and Eva Hoffmann in the forecourt of the tomb of Nebsumenu (TT 183), the parallelity of scenes in TT 178 and 296 pointing to "Musterbücher", as well as the hand of at least two painters in the tomb of Nedjemger (TT 138) will comprise the subject of this lecture.

FILER, Joyce M.

A View from Within: The Use of Radiography in Mummy Studies

Various radiographic techniques have been employed as a part of the non-destructive study of mummified remains. This paper will review some of these techniques and present some interesting findings from new examinations of human and animal remains in the Department of Egyptian Antiquities, British Museum.

More usually employed as a medical diagnostic tool for the living, computed tomography (CT) scanning has proved to be particularly useful for

examining mummies. Following an explanation of the technique it will be shown that CT scanning can help in ascertaining the age, sex and health status of an individual. Details of the mummification process together with information about the inclusion of any amulets or jewellery can also be revealed. Examples of mummies, including those of Artemidorus and Cleopatra in the British Museum, will be described.

Although the often spectacular results from CT scanning may sometimes overshadow other forms of radiography, conventional X-rays and xeroradiography continue to play a useful part in research. A selection of animal mummies, including some important cat mummies, and their radiographs will be presented to illustrate this point.

FREED, Rita E

Following Akhenaten's Artists

Estimates suggest that more than 1000 artists and their apprentices may have worked at Amarna, given the tremendous amount of material created in just over a decade of the city's existence. It is clear that the city was abandoned shortly after Akhenaten's death. Where did the artists go?

First, this paper attempts to identify those aspects of style and iconography which can be specifically attributed to Akhenaten's artists. Then it examines dated and datable examples of sculpture, relief, and painting of known provenance from the reigns of Tutankhamen through early Dynasty XIX to determine specifically which sites benefited from their expertise and to what extent. Finally, it discusses the nature and extent of their longterm artistic legacy.

FREY, Rosa A.

A New Look at Illahun

Since the town plan of Illahun was published by Petrie in 1891, it has sustained a high level of interest as one of the best preserved examples of ancient Egyptian town planning. Since 1993, architect James Knudstad and I have been working with Dr. N.B. Millet of the Royal Ontario Museum, re-examining various problematic features of the plan, including the so-called "Acropolis and Guard House," and the East Gate, the only surviving formal entrance to the town. Since the site has suffered considerably in the hundred years since Petrie's excavations, our ambitions have been modest, but we have been fortunate in some aspects of our work.

This illustrated presentation will assess a variety of new finding. These include features outside the town walls, including the remains of two mudbrick stairways built against the north enclosure wall, apparently rising to doorways to granaries within Mansions 2 and 3. Considerably more of the plan of the "Acropolis" has been recovered, revealing a fairly standard mansion plan,

albeit with anomalies. The "Guard House" may indeed be a small temple, while the East Gate is revealed in much more detail than Petrie described giving a further glimpse of what went on outside the enclosure walls.

FUSCALDO, Perla

A Preliminary Report on the Pottery from Tell el-Ghaba, a Saite Settlement in North Sinai

The results of the five campaigns carried out at Tell el-Ghaba by the Argentine Archaeological Mission, as a joint project of the CONICET and the University of Buenos Aires in the frame of the Archaeological Salvage Project of the Monuments in North Sinai, are presented here. These preliminary results mainly deal with the ceramic studies made by the team of the Mission. The ceramic material from Tell el-Ghaba belongs to the end of the proto-26th dynasty and to the beginning of the Saite dynasty, when the contacts with the Eastern Mediterranean and the Levant were increased (the end of the ceramic Phase III North and the beginning or the middle of the Phase IV North). The upper level of the settlement, a destruction level present in most of the site, could be dated to the beginning of the 6th century B.C., probably connected with the historical event of the expansion of Babylon. The domestic pottery and the pottery with specific functions were locally made in Nile silt clays and in Marl F, some sherds are in Marl A4 from Upper Egypt, and in the Bir el-'Abd clay from North Sinai. The Iron Age III imported vessels are predominantly "torpedo" storage jars and Cypriote fine pottery (Style IV), mainly the Cypriot-Phoenician ware "Black-on-red" II (IV). Neither mortaria nor mainland Greek (Attic) pottery was found in the site. The analysis of the fabrics, especially of the imported pottery, is under development.

FUSCALDO, Perla

Tell el-Dab'a: Two Execration Pits and a Foundation Deposit from the Early 18th Dynasty

During the 1997 excavation season at Tell el-Dab'a/Avaris in the eastern Delta carried out by the Austrian Archaeological Institute in Egypt under the direction of Manfred Bietak, another part of the 18th Dynasty palace-complex was uncovered at 'Ezbet Helmi. In the south-east part of this complex, between the late Hyksos citadel and the palace-complex, two execration pits and a foundation deposit were found. These were the most interesting features discovered in that campaign.

One of the execration pits contained human skulls and fingers, and the other contained two human skeletons and a large amount of pottery which had been broken above the bodies. Both execration pits have, without any doubt, a religious connection with each other and with the historical events of the Ahmose occupation of the Hyksos citadel in Avaris. The foundation

deposit comprised a small collection of clay votive objects, one of them with a hieratic inscription only preserved in part. It is associated with a large building with storage rooms and silos constructed to supply the Egyptian army in the campaigns against the Hyksos settlements from Avaris to Sharruhen.

GABALLAH, Gaballah Ali, Mustafa EL-ZEIRI, Gilles DORMION and Jean-Yves VERD'HURT

Architectural Survey of the Inner Arrangement of the Pyramid of Meidum: Discovery of Two Corridors and Two Chambers

The inner arrangement of the pyramid of Meidum has two recesses with flat roofs, whose span is 2,10m (4 cubits). Such a span is not easily conceivable without the use of a relieving system. A detailed study of the masonry has led to the discovery of a 'window' carefully walled, located in the upper section of the shaft leading to the burial chamber. In May 1998, the introduction of an endoscope into a joint enabled us to note that this window led to a small blind corridor with a corbelled roof. We removed two blocks in order to enter it. As the end of the corridor was close to the supposed relieving system, straight above the southern recess, we made a hole and we introduced an endoscope in May 1999, which enabled us to see a new chamber with a corbelled roof right above the southern recess. In September 1999, we made a second hole from the lower arrangement and we introduced an endoscope that showed a second identical chamber above the northern recess. The opening of a corridor could be seen in this chamber.

A new observation with the endoscope, made in the ceiling of the descending corridor, also showed that there was a corridor with a corbelled roof above it. The detailed study of the photographs taken is in progress.

GALÁN, José M

Amenhotep, son of Hapu, as Mediator between the People and God

Two statues of Amenhotep son of Hapu were placed at the northern side of Karnak's pylon X, which was the southern access to the temple. Amenhotep, shown as a scribe on duty, claims to be the ideal agent between the people and the divine. His mediator role is presented as a natural development from his official commission as 'herald' of king Amenhotep III and "mouthpiece" of the people. The inscription on the statues' bases summon the visitors entering the temple, inviting them to address their pleas to him (or better, to his ka-statues), so that he will direct them to Amun.

These texts are of great significance when studying how the interaction between men and god evolved, i.e., what is generally called "popular religion"

or "personal piety". Indeed, the role of mediator between men and god will be later on adopted and increased by Akhenaten and by Ramesses II.

Amenhotep son of Hapu statues are well known, and their texts have been repeatedly published in translation. Nevertheless, they have not been thoroughly studied. Their contextualization will serve as a first approach towards their better understanding and evaluation within Egyptian religion and thought. The presentation will consider the following aspects of Amenhotep's statues:

- (a) Temple statues;
- (b) Amenhotep's title "mouthpiece of the Two Lands";
- (c) His role as mediator;
- (d) Parallels;
- (e) The statues' location within the temple.

EL-GAMILI, M. M.

Realization of some Archaeological and Historical Aspects through Geoelectric Resistivity Investigations in the Nile Delta

The electric resistivity method of geophysical exploration is becoming familiar to interested geologists, engineers, hydrogeologists, and archaeologists, due to its successful applications in their fields. The results of interpretation and presentation of the resistivity data when visualised and correlated with the available hints and comments of the archaeological and historical records can lead to fascinating conclusions confirming both archaeological and historical statements, as well as solving some controversies. In the present article, the author will give some examples of the current results of his work and his scientific school working in the Nile Delta.

These examples include:

- 1) The discovery of two buried harbours of Tell El-Balamon (Abu Galal) and the delineation of the boundaries of the Island of Amon and the River of Amon.
- 2) The delineation of the two arms of the Mendesian River around Mendes (Tell El-Robá) and Thmuis (Tell Temai) of the 16th Nome. Also the canal mentioned in the Ptolemaic Plate to supply Mendes with water is portrayed to verify the tie between the cult of Khnum god (bull goat) with the running water as a symbol of fertility.
- 3) The god "Engat" or the lord of the 9th Nome at Abusir Bana (Busiris) was said to have control over both the large and small canals (rivers). These two defunct rivers are delineated west of the present Dameitta Branch, and are related to the defunct Bucolic and Sebennyitic branch of which an arm reached Behbit el-Hagara.
- 4) The discrepancies and agreements concerning the course of the defunct Canopic river in the Western Delta, from the descriptions of the classical geographers as Herodotus, Arestos, Ptolemy, Strabo and French scientists,

found its answer through the geophysically delineated bifurcating and then joining arms of the Canopic river.

5) Also, the major defunct rivers or branches in the eastern Nile Delta are delineated and found to be not simple one-course rivers, but had branching arms. Such rivers are the Pelusiac, the Tanitic and the Mendisian.

GARNETT, John. L.

Radiation Curing as a Tool in Conservation and Restoration of Archaeological Materials

Over ten years ago, our group proposed the use of UV curing technologies in art conservation as a new method for restoring and preserving damaged work for posterity. Much interest was shown world wide at the time in the process. However its major limitations, which restricted its use then, were the application only to clear coatings and some inks, the lack of reversibility, the inability to cure paints and the use of photo-initiators. These problems have now been resolved and in the proposed paper the authors will describe how the new developments in radiation cure can be used in the conservation and restoration of monuments and objects associated with Egyptology.

GAWLIKOWSKI, Michal

The Nabatean Temple at Qasrawet

The Nabatean site at Qasrawet (North Sinai) has been excavated by IFAO at the beginning of this century, and again, illegally, during the Israeli occupation of the area. In both cases, the excavations were incomplete and the existing publications very preliminary. As I could see during a short visit in 1998, the ruins are already covered with sand, allowing only a cursory inspection.

Among the visible ruins, the temple is most conspicuous. There are four gabled facades turned inward, forming a square. The architectural form of the building was never clearly understood. Some monuments in Jordan, such as temples in Wadi Rumm, Khirbet ed-Dharih, and the so-called temple of Winged Lions in Petra, can be usefully compared to Qasrawet. In this light, I intend to propose that this temple also had a central courtyard open to the sky. In my opinion, the temple of Qasrawet deserves to be systematically excavated.

GAZDA, Rajmund

Esthetical and technical problems of conservation at the Hatshepsut Temple in Deir el-Bahri

Systematic archaeological work in the ruins of the temple of Hatshepsut at Deir el-Bahari started more than a century ago. Thousands of decorated

blocks were recovered from the debris and with painstaking egyptological and architectural research by successive teams, the ground was laid for an actual reconstruction of the building form and decoration.

Continuous development in the theory and practice of conservation led to very different methods and materials having been used in the temple for the past hundred years. This has obviously affected the aesthetic appearance of the restored temple elements. Conservation and reconstruction objectives were addressed especially during the 1990s, when work was continued by a Polish-Egyptian mission of the Polish Centre of Archaeology of Warsaw University. Apart from such aspects as stabilisation and consolidation of the stone material, the program also covered the aesthetic unification of the various parts, which had previously been restored in different techniques and materials.

In order to improve perception of the ancient decoration, a plastic reconstruction in mineral plaster was undertaken wherever it was deemed important from the point of view of understanding the iconography of the representations on particular walls of the Main Sanctuary and the Upper Courtyard. Surviving fragments of the statuary were also restored, the objective being for these linear forms to contrast with the severe architectural rhythm of the building, thus bringing the perception of the object more in line with what the ancient architects had intended. Spectacular visual effects were also achieved as a result of cleaning away the soot from painted wall decoration in the Main Sanctuary.

GEE, John

B3-Sending and its Implications

Texts discussing the summoning and sending of the *b3* to visit individuals in dreams are attested in both the Middle Kingdom (Coffin Texts 89, 98-104) and the Roman period (P. Louvre E 3229). The practice of sending the *b3* is corroborated by texts from the Middle Kingdom, the New Kingdom, the Third Intermediate Period, and the Ptolemaic Period. Descriptions of the material remains associated with the practice of *b3*-sending correlate with archaeological finds from the Old Kingdom through Roman times. The practice of *b3*-sending has implications for both the concept of the *b3*, use of the term *b3.w*, as well as for certain literary productions.

This paper will discuss the concept of *b3*-sending and the associated evidence for the practice, correct some items in éabkar's thesis about the *b3*, shed new light on the use of the term *b3.w*, and discuss some implications for several literary texts including the so-called *Lebensmüde*.

GENNARO, Alfredo

Three Unique Witnesses to Recover, Restore, Preserve

The transportation of heavy loads in ancient times is still a field full of hypotheses and of unanswered questions: consistent solutions were not definitely found, and some tests gave no satisfactory results. One of the major causes of this uncertainty is the lack of witnesses and documents: this is the reason we have to take note of the few ones existing, located in Egypt.

The transportation of columns by ship in the Unis causeway at Saqqara; The transportation of a big statue in the tomb of Djehutihetep at Deir el-Bersha The transportation of obelisks by ship in the lower colonnade, south side, of the Hatshepsut temple at Deir el-Bahri are the three witnesses taken in consideration in their actual status.

GENNARO, Alfredo

A Consistent Solution to Problem 53 of the Rhind Mathematical Papyrus

The paper on practical aspects of Egyptian Mathematics, (same author, 7th I.C.E., Cambridge 1995) introduced an approach, here used to solve a problem still without solution; problem 53 of the RMP is analyzed together with problem 54, considered by Peet as a separate problem in his study of 1923. The paper explains the solution found, based on the operation that Peet defined as nonsense, and surprisingly becomes the true key to solving the problem of the scribe.

It is important to emphasize two points giving consistency to the solution found:

1. The figures handled are all contained and readable in the papyrus, and are the only ones used to work out the solution proposed.
2. No guess or hypotheses about the behavior or the ideas of the scribe were necessary, since the calculations and the procedure are clearly self-explanatory.

GESSLER-LÖHR, Beatrix

Grabkapellen der Vor-Amarnazeit im Bereich des Teti-Nordfriedhofs in Saqqara

Bei diversen Grabungen seit dem vorigen Jhdt. sind etliche, z.T. reich dekorierte Gräber aus dem NR (post-Amarna bis frühramessidisch) gefunden worden. Zahlreiche Grabbeigaben (Gefäße, Schmuck, Uschebtis u.a.) aus dem 4-6 Meter über dem Niveau der AR-Mastabas liegenden Gelände beweisen zwar das Vorkommen älterer Bestattungen aus dem NR, jedoch nicht die Existenz freistehender Oberbauten aus der Vor-Amarnazeit. Bisher unbeachtet blieben einige Stelen in Museen, die zumindest eine einfache

Ziegelkapelle mit Kultstelle für diese Zeit belegen. Hinzu kommen Blöcke aus einem Grab der Zeit Thutmosis' IV./Amenophis' III., die auf eine reliefdekorierte Kapelle schliessen lassen. Hervorragende Einzelfunde wie die Holzstatuette des Tchay (Kairo Museum) lassen dazugehörige Grabbauten vermuten. Eine ehemals im Dorf Abusir verbaute qualitätvolle Stele (Minhotep Hetutu) zeigt, daß sich der Friedhof der Vor-Amarnazeit noch weiter nach Norden hin erstreckt haben wird.

GESTERMANN, Louise

Neues zu Pap.Gardiner II (BM EA 10676)

Die Texte von Pap.Gardiner II, den Sir Alan Gardiner 1933 dem British Museum in London als Geschenk überließ, sind seit 1935 über die Edition der Sargtexte von Adriaan de Buck zugänglich. Der Papyrus selbst blieb bislang allerdings unveröffentlicht, wenngleich er in der ägyptologischen Forschung weitreichende Rezeption erfuhr. Bei der nunmehr in Arbeit befindlichen Publikation des Papyrus haben sich deshalb auch einige neue und interessante Gesichtspunkte für die Beurteilung dieses Dokumentes ergeben. Sie betreffen die Herkunft und die Datierung des Papyrus sowie seine Überlieferungsgeschichtliche Stellung innerhalb der Tradierung funeärer Literatur im Übergang zum Mittleren Reich, nicht zuletzt aber auch die Funktion des Papyrus. Danach werden diverse Einschätzungen zu überdenken sein.

GOEBS, Katja

niswt nHH: Kingship, Cosmos and Time

One of the oldest and most prominent ways in which the Egyptians hoped to achieve immortality was by composing funerary texts in which they associated themselves not only with the solar, but also with the lunar or stellar, gods of the sky. A group of texts which demonstrate the deceased's aspiration to identify himself successively with the gods of the day and those of the night is particularly revealing: the variety of potential divine associations reflects his desire to live "eternally", that is, through the entire cosmic cycle, day and night.

Apart from the temporal implications of such a "succession" of gods, there are additional political connotations to this conception, which derive from the royal role ascribed to the sun-god. During periods of solar invisibility, this role has to be taken over by "deputies", in particular the moon, the constellation Orion (Osiris), and—importantly—the morning star. The cosmic changeover of rule in the sky is described in terms of political ceremonies, namely the bestowal of crowns and other insignia, and the assumption of the celestial throne. Such a treatment illustrates the overlap in the conceptions of celestial and terrestrial kingship. Moreover, descriptions of the ceremonies associated

with the assumption of the latter parallel the terms in which the deceased's ascent to the sky is described, allowing for an interpretation of both procedures as *rites of passage*, in the course of which their recipient is transformed into a supernatural being.

GONZÁLEZ Y AREMA, Ángel

An Analysis of Various Anatomical Parts from Egyptian Mummies belonging to Museum Collections in Spain

A number of mummy relics were brought to Spain during the last quarter of the XIX century as a result of scientific curiosity or to form part of more general collections from ancient Egypt. The seven anatomical parts to be discussed in this paper have remained unstudied until this moment. Each one of these is from a separate and anonymous individual, although the last of the four crania included in this study could possibly be identified as one of the members of the family of Sennedjem. This hypothesis will be put forward here. The seven come from different and unrelated sites in Egypt. Also, in two instances, it is possible to make conclusions regarding the most probable causes of death, and this will be discussed in this investigation.

These anatomical fragments, taken together, can be considered as a patent testimony to the desire of the Spanish intellectual class of the time to pursue the scientific study of the new disciplines of Egyptology and Anthropology, incremented by the diffusion of Charles Darwin's evolutionist theory. In two cases, it can be demonstrated that the relics were brought to Spain for their anthropological and evolutionist study.

GOUDCHAUX, Guy Weill

The Rediscovery of Two Royal Bronze Figures of Alexander Helios

Two *life-size* standing bronze figures of Alexander Helios have been in two American museums for almost a century without having been recognised. (Alexander Helios, the eldest son of Anthony and Cleopatra, and the twin of Cleopatra Selene, was born in 40 BC).

A new lecture depending on a careful reading of several ancient writers describing the youth in special regal attires in a striking manner during the ceremony of the donations in Alexandria in 34, now allows the author finally to put a name to the two bronze figures.

It also enables us to understand much better the mechanism of the cult of the sovereigns and is a fascinating testimony of how the propaganda of Cleopatra and Anthony was developed in the direction of the East.

GOYON, Jean-Claude

Les textes ptolémaïques et leur étude: Un bilan

Les éditions d'Edfou, Dendara et partiellement Philæ, la bibliographie de Sauneron ont permis l'élaboration internationale des «listes de Montpellier» amplifiant les travaux pionniers de Drioton, Fairman et De Wit. L'aide à la lecture et à la formation existant ainsi devait être complétée d'une grammaire suppléant l'œuvre vieillie de Junker, non remplacée pas l'excellent lexique d'Edfou, dû à P. Wilson, 1997. Le problème demeure l'accès aux sources: moins de la moitié de Philæ est publié; les relevés du temple de Mout non édités par Sauneron, prêts depuis quatre ans, attendent un financement; un corpus des textes des statues ptolémaïques fait défaut, malgré les travaux fondamentaux d'H. De Meulenaere/Bothmer, les contributions de R. El-Sayed, Janssen-Winkel, Vittmann.

Les éditions avec traduction des inédits de Dendara (Cauville) sur le modèle de Philæ (Junker/Winter), imposent un constat: les notes n'utilisant que partiellement les parallèles ou prototypes et ces traductions ne peuvent remplacer des études ponctuelles. Proposer la traduction d'un «temple» sans les données des autres est prématuré. Seule utile est l'analyse individuelle de documents rituels. L'exemple du «Rituel d'apaiser Sekhmet» permet de définir l'approche optimale.

La version complète gravée sur les architraves du pronaos d'Edfou montre que Ph. Derchain, dans sa remarquable édition des textes de l'hémispéos d'El-Kab, n'a donné bases et parallèles, montré la parenté avec le papyrus Chester-Beatty VIII et les sources plus anciennes qu'en fonction de la version éditée. La compréhension reste incomplète, le texte originel non établi, les données inédites: temple d'Isis à Dendara (pronaos), temple d'Hathor et multiples «citations» des scènes du *shpt Shmt* des sanctuaires récents n'étant pas intégrées. Le progrès des études ptolémaïques pour l'avenir implique un renouveau des nombreuses sources encore inédites, de même qu'une formation et une motivation accrues de jeunes épigraphistes-philologues.

GOZZOLI, Robert B

Piye Imitates Tuthmosis III. Trends in a Nubian Historiographical Text of the Early Phase

The Nubian king Piye during his reign willingly imitated or tried to emulate the glorious Tuthmosis III in many aspects. The attempt at imitation is visible from the titulary used by Piye; he is the first Nubian king to use a complete series of five names, some of which were reminiscent of or deliberate copies of those of the Eighteenth Dynasty pharaoh.

But the emulation was taken much further, the evidence of which is mostly represented by the contents of the triumphal stela set up by Piye at the time of his victory against the various princes and kinglets of Egypt. In fact this text

recalls closely that of Tuthmosis III, found erected beside the later one in the Gebel Barkal B 500 temple. Many details of the structure of both texts recall each other, especially in the part of Tuthmosis III's inscription related to the battle of Megiddo. Some differences, however, are opposed to such points of touch. From the linguistic point of view, classical Egyptian, mastered in Tuthmosis III's stela, is used by Piye's scribe(s), but sometimes mixed with contemporary Late Egyptian phrases. However, the texts have a different perspective; Tuthmosis III affirms his victories in a foreign land, while Piye describes the war against rebellious subjects who are within Egypt itself and this difference is evident in the inscriptions. In Piye's stela, the question of how much Nubian culture is hidden by the hieroglyphic format used is still unanswered.

GRANDE María J. López

Winged Rashap: Egyptian Iconographic Evidence

A few Egyptian iconographic examples dated to the second millennium BC show the image of a winged figure in Asiatic garb, probably a Western Asiatic deity. The majority of such documents offers a winged male figure attacking a serpent with a long spear. The precise identification of this god in such evidence is difficult because of their fragmentary state of preservation as well as the absence of complete inscriptions, but there are enough comparative items to reconstruct the scenes as depictions of the serpent slayer known in Egyptian and Western Asiatic sources. It has been suggested that the Asiatic winged god of this fragmentary Egyptian evidence could be identified as Sutekh, Seth or the Asiatic god Baal. Epigraphic evidence relating to the Asiatic god Rashap as a winged warrior god is scarce but important in Western Asiatic sources. The number of inscribed Egyptian objects which explicitly identify Rashap, allow the definition of iconographic criteria to identify the god in connection with Asiatic garb and specific weapons, among them a long spear, according to the peculiarities that characterise Rashap in Egyptian thought.

GREEN, Lyn

Beyond the Humours: Some Thoughts on Comparisons between Pharaonic and Graeco-Roman Medical Knowledge

Since 1959, classicists have by and large regarded *Ancient Egyptian & Cnidian medicine: the relationship of their aetiological concepts of disease*, by Robert O. Steuer and J.B. de C.M. Saunders as the definitive work comparing pharaonic Egyptian and classical Greek and Roman medical thought. However, a number of important texts have appeared in translation since then

and there is a considerable and growing body of work being done on classical medicine, especially in the area of gynaecology. In this brief paper, the author will build on this recent work and her own previous research on various substances in the pharmacopoeia. The paper will focus on three main topics:

1. The current state of research in Egyptian and Greek medicine (a very brief synopsis)

2. The Graeco-Roman construct of the body.

3. Comparative physiology in Pharaonic medicine

Since much of the current research and deconstruction of texts in Classics concerns gynaecology in the ancient Graeco-Roman world, a comparison with this area of Egyptian medicine is indicated. Pharaonic and Graeco-Roman notions concerning conception and virginity will be compared, as well as other aspects of bodily functions, such as the role of food in ancient medical thought.

GREGERSON, Edgar A.

Deixis in Ancient Egyptian

The deictic system of ancient Egyptian has not survived intact and has consequently not been examined systematically. But it is useful to summarize what can be known and to suggest problems for further research. Tantalizing hints are already fairly well known, as, for example, with *dy* and '3, both of which are variously translated as either 'here' or 'there.' Comparative work dealing with the rest of Afro-Asiatic suggest other possibilities, some of which are also considered here.

GRILLETTO, R., R. BOANO E. FULCHERI, E. LEOSPO et E. RABINO MASSA

Un cas de ménigocèle dans un nouveau-né égyptien de la XIe dynastie

Dans la collection ostéologique égyptienne du musée d'Anthropologie de l'université de Turin (Italie), il y a une petite momie d'un nouveau-né de la XIe dynastie provenant des fouilles que le musée égyptien de Turin a conduites à partir de 1911 jusqu'à 1937, sous la direction des Pr E. Schiaparelli et G. Farina et auxquelles participa le Pr G. Marro en sa qualité d'anthropologue. Marro avait diagnostiqué une petite boule qui se trouve entre les fesses du petit comme un prolapsus rectal, mais à la lumière des nouveaux examens soit histologiques soit radiologiques que nous avons conduits, nous sommes parvenus à faire un diagnostic de ménigocèle. À notre avis, c'est le cas le plus ancien et le plus certain qui documente cette pathologie.

GROTHER, E., B. LUSCHER, and T. SCHNEIDER

Recent Work in the Royal Tombs of Ramesses X and Siptah in the Valley of the Kings

From 1998 onward, a project labelled MISR, (Mission SiPtah-Ramesses X) has been pursued by Egyptologists from Basel University. It aims at comprehensively excavating, recording and publishing the tombs of Siptah and Ramesses X in the Valley of the Kings.

In the course of the first archaeological campaign (December 1998–April 1999) the tomb of Ramesses X turned out to have been left unfinished and never used for the king's burial. It was excavated, measured and photographed; the existing traces of decoration were recorded. Two dozen sand layers testify to repeated flooding of the tomb since antiquity. Clearing in the vicinity of the tomb down to the natural rock revealed a great amount of small finds including hieratic and figured ostraca and fragments of the Amdouat decoration of the adjoining tomb of Seti I. Numerous ostraca were found inside the workers' huts above the tomb entrance. Nearby, the embalming cache of Tutankhamun (KV 54) could be relocated. Work in the tomb of Siptah comprised measuring, photographing, and recording of hitherto unknown decoration remains, partly in the back part of the tomb. Additionally, the paper will inform on recent results of the second campaign (December 1999–April 2000).

GUIDOTTI, M. Cristina

Le musée égyptien de Florence à la fin du deuxième millénaire

La formation du musée égyptien de Florence remonte à l'année 1855, avec la réunion des collections acquises pendant la première moitié du siècle passé. Le musée a été installé par l'illustre égyptologue Ernesto Schiaparelli et a été ouvert au public en 1883; depuis lors, il a souvent souffert de l'absence d'un directeur égyptologue, capable de mettre en valeur ses riches collections et de renouveler l'ancien arrangement. Par conséquent, le musée est aujourd'hui peu connu, quoiqu'il soit le deuxième en importance en Italie, après le musée égyptien de Turin.

À la fin du deuxième millénaire, deux siècles après sa formation, le musée est maintenant en cours de renouvellement et on essaie de le faire connaître, grâce à la présence de deux égyptologues qui s'en occupent depuis ces quelques dernières décennies. Outre l'organisation et la participation à de nombreuses et importantes expositions, le musée égyptien de Florence contribue en effet à des projets spéciaux et européens, relatifs surtout à l'informatique, et il est en train d'agrandir ses espaces d'exposition, par l'arrangement de deux nouvelles salles déjà ouvertes provisoirement au public.

GYÖRY, Hedvig

Contribution to the Study of Magic in Medical Treatment in Ancient Egypt

A closer look at today's medical practices reveals many academic and non-academic trends, though the media transmits a lot of dominant ideas that shape men's views. Ancient Egyptian medical practice was no different. The uniformity was given by the Egyptian view of life, the diversity by their study. Medicine-men studied for years to gain their knowledge of healing. Some of them attended the House of Life, studied ancient papyri or joined the healing priests, magicians or physicians. Others, without the knowledge of writing, learned only through oral traditions and used methods inherited from their fathers. There must have been many greater or lesser techniques and tricks which were characteristic of a certain master-pupil circle, but they are lost for ever as they were never written down.

But the writings give clues to other aspects. There is no medical text without a religious background. Even the so-called recipes have their own spiritual world. Minerals, plants, animal or human parts have their irrational connections. The recipe was one way to express the healing force that the medicine-man wanted to access by asking for help from the gods, by using the magical parallelism or other religious-magical devices which are found *expressis verbis* in the magical texts. In these latter cases, they are usually accompanied by some instructions about the circumstances in which they were used.

Other aspects of healing practices are represented by objects; for example, kohl vessels, instruments, apotropaia or amulets. Some of them have written instructions on how to be used, though most of them are known without any written instruction. In some cases, physical experience shows the way they could be used but many of them have no practical function in rational medical treatment. The clues are mostly in the psychological or mythological sphere, by the semantic interpretation of their shape and/or their representations. This other symbolism shows also the same religious-magical practice as the spells or recipes.

Studying these possibilities, it is conspicuous that many treatments relate to the Osiris-Isis-Horus circle which is natural because of the general effect of these gods on the Egyptian religion, especially on the popular one. Besides, there are many uses of generalities and of various other deities. The aspects of these gods and the way of using the different techniques might hint of distinct cultural strata, scholar training or even geographical sources.

HAGGAG, Mona

Two Religious Buildings at Byzantine Marea

In 1978-79, two buildings were uncovered at Marea, 45 km to the west of Alexandria on the southern coast of Lake Mareotis. They remained

unpublished until now. The planning of these two buildings is unique in ancient Christian architecture; their design resembles that of another one excavated by Kaufmann at the holy city of St. Menas. The function of the latter is highly controversial and disputable, but in the light of the new evidence provided by Marea's buildings, we will have a new interpretation of the function of all three buildings which were used for both religious and temporal purposes.

HANSEN, Nicole B.

Leaping Lizards! "Poison" Geckos in Ancient and Modern Egypt

Two species of gecko, the fan-footed gecko (*Ptyodactylus hasselquistii*) and the white-spotted gecko (*Tarentola annularis*) are regarded with dread by many of the current residents of the Nile Valley. Although they are completely harmless animals, some Egyptians and Sudanese believe these lizards can cause skin diseases such as leprosy, and poison drinking water, salt, flour and other foods by contact. In this paper, the possibility that this belief about the gecko has its origins in ancient times will be explored. Various types of evidence will be discussed: in vignettes of religious texts appearing on coffins, papyri and in royal tombs, geckos are brandished by deities who normally brandish knives and noxious snakes. Lizards are among the animals that P. Ebers gives instructions concerning driving them from the house. P. Magical calls for cooked gecko in a recipe to cause a man skin irritation. Finally, an animal which appears at the end of a list of dangerous snakes that Sauneron has identified as a chameleon will be demonstrated to actually refer to a gecko. The ancient and modern evidence will be discussed in light of Islamic sayings of the prophet concerning noxious lizards.

HARTWIG, Melinda K.

Style and Visual Rhetoric in Theban Tomb Painting

The idea of art-as-propaganda has been pointed out by W.K. Simpson, and others, who noted that art in ancient Egypt relayed information in an attempt to affect or influence the observer. In this way, Egyptian art was a means of communication. In this paper, I will examine private Eighteenth Dynasty Theban tomb chapels and discuss how the style of painting on the back walls of the transverse hall of T-shaped tombs relayed information between people of common background and/or shared knowledge. I will examine how style reflected the attitudes of the Sender and offer an interpretation on how it was intended to impact the Receiver.

Inherent in this analysis is a definition of style which is broad in scope; based on current art historical theory as well as the relationship between Egyptian art and writing and the visual code they shared. This code, based on

hieroglyphic signs, words and texts; details such as insignia, posture, physiognomy and stature; and the qualities of color, line, form and space, relayed a message to viewers that was intended to influence them. In Theban tomb painting, I will illustrate how style visually communicated the rhetoric of the elite to a varied audience in order to secure the maintenance of the tomb owner as well as disseminate the ideology of the elite.

HASANEIN, Omaila

House Contracts in Ancient Egypt through Demotic Documents, from the 26th Dynasty to the End of the Ptolemaic Period

This work is based on the study of almost one hundred published demotic legal documents concerned with the different dealings of houses such as: sale, mortgage, inheritance, agreements, etc. This work also concerns the clauses of the "Hermopolis Code" pertaining to houses, explaining the legal procedures that must be taken in case there is any conflict between the parties. It includes also a very thorough study of all legal clauses in different types of contracts showing the different formulae according to the type of contract.

This study has shown that buying or selling a house needed at least two legal documents: 1) Document of Payment; 2) Cession Deed. Other cases such as mortgages do not give the cession deed, unless the person who mortgaged the house in return for a sum of money is not able to give back the money on the appointed date. In such a case the house was transferred to the 2nd party. These documents have also shown that if the house was given from a husband to his wife as *s'nh*, the wife had to give a release concerning that house and her agreement had to be proved officially.

The study ends with an index of legal terms included in documents and description of its vicinities and its different rooms.

HASANEIN, Omaila and Nasery ISKANDER

Shedding Light on the Functions of Some Unknown Objects in the Egyptian Museum

During excavations, many objects found in tombs and temples in the same site are merely registered in the field register and later on in one of the registers of the Cairo Museum, without being studied, waiting for a scholar to disclose their functions. In the museum, they are displayed either with the rest of the collection or close to objects considered to be from the same category. Sometimes, even then, it is not clear why these objects have been put on display there or what were the criteria which encouraged the staff of the museum to locate them there. A very good example is the stove of Ramesses

II, found in Tanis, which was recorded in the museum as "corroded metallic box", for more than 30 years. It was sent to the labs to be studied and treated and sent back to the Museum. At that time it was discovered that it is an oven for preparing chemical compounds and medicines. Also included are arrows, an incubator, shade watches, horns, toys, games, sickles, balls, balances and weights.

HASEGAWA, So

New Kingdom Necropolis at Dahshur

The Egyptian Culture Center of Waseda University has revealed a New Kingdom necropolis 2km north of Snefru's Red pyramid at Dahshur. The New Kingdom topography was first reported in Dahshur. At the southernmost area of the necropolis, a tomb was unearthed which, from a brick stamp found there, would seem to have originally belonged to one "Ipay, the Royal Butler". The entire superstructure had been levelled to the mud-brick foundations in antiquity, but a deep rectangular shaft led to a series of roughly hewn subterranean chambers.

The objects found by the clearance were divided into two groups belonging to the reigns of Tut'ankhamun and Ramesses II. Therefore, the total assemblage of the objects suggested a date in the post-Amarna period and the chambers were used for several burials. Then a granite sarcophagus was found in the innermost chamber. The inscriptions suggested that the owner is a "royal scribe" and "steward" Mes in the period of Ramesses II. The use of the tomb from the late 18th Dynasty to the late 19th Dynasty implies the same formation and use of the necropolis as the areas investigated by the Anglo-Dutch expedition and Cairo University in Saqqara.

There has been considerable speculation as to how this area was assigned to high government officials of Memphis and Thebes during that period. Necropolis formation in the New Kingdom period has been discussed only in the Saqqara area, but the results of this expedition have proved that the area extending more than 5km southwards from Saqqara to Dahshur must be considered. Then how the necropolis was exploited with the area of Memphis itself will be discussed again.

HASSAN, F. A.

Kafr Hassan Dawood, Preliminary Results of the SCA-UCL Archaeological investigations 1995-1999

Kafr Hassan Dawood is a late Predynastic/Early Dynastic site, with a later phase dating to the Late and the Graeco-Roman periods. Investigations, first by the Supreme Council of Antiquities (SCA) and later by the SCA and University College London (UCL) directed by the author has led to the discovery of more than 750 graves dating to the formative period when the

key elements of the Egyptian nation state were being established. A key component of the combined SCA-UCL activities has been the field training of Egyptian archaeologists.

The excavations revealed that the site belonged to a small community at the periphery of the major center of political development. Characterized initially by a relatively poor community with no pronounced social stratification, the transition to a nation state society in Egypt ca. 3300/3200 BC is marked by the emergence of a cadre of elite, an increase in the average number of grave goods, and a distinct social hierarchy. However, by the reign of King Aha, the site ceases to be of political importance. This decline may reflect on the one hand the consolidation of the power of the state and on the other a change in governmental policy toward overland trade with the Levant.

HASSAN, Ferial Mahmoud

Pigments that People of Ancient Civilizations used for their Mural Painting

Ancient Egyptian mural paintings, such as walls of temples and tombs and wooden sarcophaguses, and Islamic pottery and glass have survived in an excellent state for more than 5000 years. These beautiful mural paintings have attracted the attention of scientists because of their historical importance and exceptional beauty.

Investigation shows that oil was known since ancient times. The ancient Egyptians did not use oil paint but instead they used lime pigments and this may be the reason why such pigments keep for a very long time without fading.

Spectroscopic analysis taken in our Center for Conservation Research is applied as infra-red, X-ray and atomic absorption to study, analyze and compare between all the colours: red, yellow, green, blue and gray. Samples are taken from walls, coloured layers of wooden sarcophaguses, and Islamic pottery and glass. The aim of the present study is to provide information about the composition of the materials used in the coloured samples. This goal can be achieved by studying the elements and compounds constituting this painting layer.

HASSOUN, M.

Some Symbolic Implications of the Min Festival

The great ceremonial feast of Min, as recorded in the Ramesside Period, is one of the more debatable topics in Egyptological studies. The feast is celebrated in the harvest month of Pachons, under the guidance of the King, with the participation of the Queen, Priests, some Nubians (for singing and dancing), statues of royal ancestors and the White Bull.

The most prominent ceremonies in this feast are: 1) the procession of the god's statue; 2) the announcement of the royal coronation; 3) the harvest ceremony, performed by the King. Many scholars have regarded the royal coronation and the harvest ceremony as the chief ceremonies of the whole feast, so the festival of Min is normally looked at as a harvest and (or) coronation feast. Meanwhile, the procession is regarded simply as a mere transferring of the god's statue from his temple shrine to the ceremonial area. In fact, the procession of the god's statue seems to be the most significant event of Min Festival. It seems very likely that during the proceeding forward of the god's statue, the god Min had the opportunity to copulate with his own mother, Isis, fulfilling his function as Kamutef (bull of his mother).

This paper discusses such (and other) symbolic implications of the Great Procession of the Min Festival.

HAWASS, Zahi

The Discovery of the Roman Cemetery at Bahariyya Oasis

The discovery of more than one hundred Roman mummies in Bahariyya Oasis has swept the media world-wide with a force not seen since the discovery of Tutankhamun's tomb. The site was discovered in 1996 by an Antiquities guard of the Temple of Alexander the Great as he was crossing the oasis on his donkey. The donkey's leg fell through a hole in the roof of a tomb. Immediately, the Inspectorate of Antiquities began excavations 6 km from the town of El Bawiti.

In March 1999, a team of archaeologists from Giza began scientific excavations of the site. Four tombs were excavated and 105 well-preserved mummies were uncovered. Each of the four tombs unearthed had a distinctive architectural style. Among the mummies found at Bahariyya, there are several general styles. The first type of mummy wears a gilded mask, the second type is covered with *cartonnage* that depicts various kinds of scenes, the third type was placed inside an anthropoid coffin, and the last is covered entirely with linen.

A survey of the site shows that it is about 6 square km in size and contains tombs that look to be from the Greek period in Egyptian history, which began in 300 B.C.

HEIDEN, Désirée N.

New aspects on the treatment of the cult statue in the Daily Temple Ritual

This paper presents the results of a study on the treatment of the cult statue in the Daily Temple Ritual based upon the Research of Rituals in the disciplines of Egyptology and Comparative Study of Religions. The main question deals with the real performance of the priest in the ritual—its *Sitz im*

Leben. Therefore the well preserved reliefs depicted in the sanctuaries of the temple Sethos I, in Abydos were chosen for the basic source of the study, as these do not only provide hieroglyphic texts and pictures, but are also attached to the place of their actual ritual performance: the residence of God in the temple.

According to the prevailing opinion the Daily Temple Ritual represents as the "morning toilet" of God, a ritual in which the cult statue is woken up, washed, clothed, treated with ointments and supplied with food and his divine insignia. With respect to the above mentioned, the treatment of God, who is manifested in the statue himself, follows exceedingly human models. However, how do the sources really prove the performing of the ritual by the priest as "morning toilet"? Experiences from the general Research of Rituals has already revealed several approaches—e.g. terms like lingual offering or performative action—which also lead to new insights into the old Egyptian ritual.

The paper investigates in which way the sources really give information about the actual performance of the priest and provides new perspectives on a discussion of the treatment of the cult statue.

HEIN, Irmgard

Ezbet Helmi/Tell el-Dabaa: New ceramic aspects at the beginning of the New Kingdom

The pottery found at the site of Ezbet Helmi in the Tell el-Dabca area is of great interest for the beginning of the New Kingdom in the Eastern Nile Delta. The material from the area around the two fortress structures from the New Kingdom is of specific interest for dating the levels, as inscribed material is rare. In general the pottery in question belongs to the first half of the 18th Dynasty and shows differences from the earlier pottery from Hyksos levels which is present in the region. Some typological and morphological changes of the vessels from the Hyksos period to the New Kingdom will be demonstrated with examples.

The meticulous evaluation of the pottery material during the last years has revealed interesting changes in the local pottery production and fabrics in the first half of the 18th Dynasty. Also interesting in this period is the question of imported pottery, which indicates trade connections at this time to the Eastern Mediterranean and the Ancient Near East.

The study and evaluation of the material is extremely important for the archaeology of Ancient Egypt, as well as for the Ancient Near East at the beginning of the Late Bronze Age.

HELMi, Fatma M., Mohamed A. ABDEL REHIM and Mohamed M. MEGAHED

Treatment and Conservation of some Metallic Objects at Archaeological Excavation Sites, Sinai, Egypt

Sinai has been an important site in Egypt since the oldest Pharaonic periods, due to the existence of gold, copper ores, semiprecious stones, and the military Horus road which linked the town of Qantara-east and the town of Khaza in Palastine. The Maghara area, in South Sinai, is one of the oldest mines for copper ores and turquoise minerals, where inscriptions belonging to the 3rd and 4th dynasties were found. Copper slag and ancient turquoise mines existed at Wadi Nasab and Serabit el-Khadem respectively. Several ancient castles were revealed along the Horus road belonging to the New Kingdom, Roman, and Byzantine periods.

Various archaeological metallic objects were discovered at North Sinai which include the following:

- a) a large number of Roman and Ptolemaic coins, and a Ptolemaic sword handle at Tell Abu-Seifi;
- b) a group of arrow heads, amulets in the form of small and large statues of gods, swords, and a crown at Tell-Habwa, belonging to the New Kingdom;
- c) a group of Byzantine coins at Tell-Fadda.

The nature and geology of the excavation sites at Sinai led to the presence of the consequent factors of deterioration: the high level of underground water, salts, and sand-dunes. The metallic objects discovered were found coated with layers of thick corrosion product of different colors. X-ray diffraction and atomic absorption analyses were carried out, as well as metallurgical and scanning electron microscopic studies, to determine the chemical composition of the corrosion layers as well as the metallic objects. Comparative studies of the constituting alloys of the metallic objects were done at different periods. Metallic objects were treated and conserved with the suitable materials and methods according to their chemical composition and the nature of corrosion products encrusting them.

HERBICH, Tomasz

Archaeological geophysics in Egypt: Recent Results

Following sporadic application in the eighties and early nineties, geophysical methods have recently started being taken into serious consideration as a tool of archaeological prospecting by archaeologists working in Egypt. The magnetic method has been the one most commonly applied, radar and electrical resistivity methods also being employed on occasion.

The paper presents the results of the past four seasons work at different Egyptian sites, which represent a broad horizon, in both chronological (from Predynastic to Late Roman) and geographical terms (Delta, Mediterranean coast, Fayum and Dakhleh oases, Upper Egypt, Red Sea coast).

In most cases, geophysical surveying has been found to provide opportunities for mapping archaeological structures that are not visible on the surface, such as stone and mud foundation walls, pottery kilns, fireplaces, tombs. This is of fundamental importance for estimating the extent of an area which should be officially and rigorously protected, in view of the ancient remains found on it, as well as for the task of planning the location of archaeological digging on a site.

HEROLD, Anja

Living within Piramesses—the Delta Capital of the Ramessides

The Pelizaeus-Museum Mission to Qantir/Piramesses devotes its work to the evaluation of the architectural and social structure of the capital of Ramesses the Great. Although remains of a vast exercise court for chariots with attached multifunctional workshops (area Q 1) and a royal horse stud for about 460 animals (area Q IV) have been excavated so far, the city's living quarters had been hidden until magnetic surveys began in 1996. Since their results will be presented to the conference by the field director Dr. Edgar Pusch, the intent of this paper is to throw a little light on the bits and pieces of habitation activities unearthed within area Q IV. They cover the first dwelling houses excavated in Piramesses (early 19th dynasty, stratum Bc/d) including amphora burials of children as well as the later use of the royal horse stud as a habitation area, with each single stable room now to function as a store, slaughterhouse, as well as living room or kitchen proper. This stratum (Ba) could be dated to the shift of the 20th to 21st Dynasty, just the time when Piramesses was given up in favor of Tanis. Although the blocks and columns of temples and representative buildings of Piramesses were moved to Tanis together with the authorities of state and religious administration, most of the inhabitants seemed to have stayed at Piramesses, whose building history may now be fixed chronologically from the very start of the 19th Dynasty well into the first millennium BC.

HODJASH, Svetlana

Restaurierung von altägyptischen Reliefs und Statuen aus Kalkstein im Puschkin-Museum der Bildenden Künste, Moskau

Seit dem Eintrittspunkt altägyptischer Reliefs und Statuen ins Puschkin-Museum stand das Problem ihrer Restauration ständig im Vordergrund. Das betrifft vor allem die besonders kritischen Zeitspannen der Geschichte Rußlands: nach der Oktoberrevolution in den zwanziger Jahren, wie direkt nach dem Weltkrieg in den Vierzigern. Das hängt wohl mit dem Umstand

zusammen, daß sich die Objekte in der Evakuierung befanden, wo die Aufbewahrungsbedingungen höchst unbefriedigend waren. Im Gestein liefen die Prozesse der Abschlackung und Salzbildung an. Ein zum ersten Mal von Professor Kaschtanov in den Vierzigern angewandtes Restaurierungsverfahren der Gesteinsfestigung mittels eines Kaseinleimes verursachte später weitere Zerstörungen an der Oberfläche. Die Restaurierungsmaßnahmen zwischen 1950 und 1970 wurden vom Institut für Restauration und Konservierung, der Restauratorin der Staatlichen Eremitage in St. Petersburg, Maja Lebel, sowie der Restauratorin des Puschkin Museums, Tatjana Koch, durchgeführt. Dabei wurde eine Reihe von Laborversuchen an verschiedenen Kalksteinarten aus Ägypten durchgeführt. Als Ergebnis entstand ein neues Restaurierungsverfahren: Nach einer gründlichen Entsalzung im Destillat wurden die Objekte mit einer Festigungslösung auf der Basis von Polybutyl Metacrilat getränkt. Die mehr als 25 Jahre, die seitdem vergangen sind, bestätigen diese relativ sichere Methode der Restaurierung.

HORN, Juergen,

Provenances of Material Remains from Christian Egypt: Considerations on a "Coptic Porter & Moss"

That the exact provenance of ancient artefacts is an indispensable precondition for historical research in the widest sense is a commonplace. Without this information scholars can hardly make accurate or differentiated statements, but it is frequently very difficult to obtain.

This is especially true for the material remains of Christian Egypt. To give an example: Do documents written in Sa'idic Coptic really come from as-Sa'id, i.e. Upper Egypt? Unfortunately, there is no such helpful research tool as the pharaonic "Porter & Moss" for Coptic materials. The chief concern of this paper is to identify the main problems of "Coptic provenance", and to show a way to overcome them.

(This paper will be given in German.)

HUBAI, Peter

Religionswechsel im Ägypten der Römerzeit

Auch wenn wir keine Zeugnisse vom ägyptischen Christentum im 1. Jahrhundert besitzen, ist eine bewiesene Tatsache, daß das Christentum in Ägypten in der ersten Hälfte des 2. Jahrhunderts präsent war. Die Kirche erstarkte bis zum 5. Jahrhundert in zunehmendem Maße, bis eindeutig wurde, daß die traditionelle altägyptische Religion endgültig besiegt war. Der Verlauf dieses historischen Prozesses läßt sich anhand der Quellen mehr oder weniger verfolgen, das *quomodo* dieser Entwicklung mag bekannt sein, aber die interessanteste Frage, *warum* das Christentum die alte Religion

verdrängte, bleibt dem Historiker meist verschleiert. Die Antworten, die bisher gegeben wurden, operieren mit der dogmatischen Überlegenheit des Christentums, mit der Behauptung, daß das Christentum einer gesellschaftlich höheren Entwicklungsstufe angehöre, mit der ethischen Überlegenheit der neuen Religion, mit der größeren sozialen Sensibilität der Christen, mit dem Begriff des Monotheismus oder mit der größeren Wirkungsstärke des Gottes der Christen. Da diese Erklärungen den Historiker kaum befriedigen dürften, versuche ich die Antwort anderswo zu finden. Meiner Meinung nach sollte nicht so sehr der Sieg des Christentums, sondern die Ursache des Untergangs der altägyptischen Religion untersucht werden. Die Frage ist noch brennender, wenn wir bedenken, daß gerade in derselben Zeit die Isis-Religion in Europa ziemlich erfolgreich war, sie jedoch unfähig blieb, die Religion des Mutterlandes zu stärken. Religionsgeschichtlich gesehen hätten sich Lösungsversuche angeboten wie etwa eine "Theologie des *deus absconditus*" oder die Mystik. Diese Wege wurden jedoch nicht gewählt. Wenn wir den Religionswechsel verstehen wollen, müssen wir uns mit den soteriologischen Erwartungen und den dahinterstehenden anthropologischen Vorstellungen der Ägypter in der Römerzeit auseinandersetzen.

HUSSEIN, Fawzia Helmy, Soad SHABAAN, Zahi HAWASS and Azza Mohamed SARRY EL DIN

Anthropological Differences between Workers and High Officials from Giza in the Old Kingdom

A comparative anthropological study was done on the skeletons of both workers and high officials from Giza, dating to the Old Kingdom. The study discussed cranial measurements, demography, stature and paleopathological findings. The material consisted of 170 skeletons of high officials from the western cemetery and 76 skeletons from the cemetery of the workers. The results of the study showed that workers' longevity is shorter than that of high officials. The mean stature of the high officials exceeded that of the workers in both sexes. Degenerative joint diseases are frequent and more severe in workers than high officials, both in the vertebral column (especially the lumbar region) and the knee joint.

HUSSEIN, Maissara Abd Allah

The Ouabit of Dandara

The Ouabit chapels are considered to be one of the most important architectural and religious elements in the Graeco-Roman temples. The Ouabit of Dandara represents an obvious example of these chapels, due to its role during the ceremonies of the union with the sun disk *hnmt-ltn*, as it was the place where adornments and diadems were offered for the Ka-

statues of the deities.

Although there are no clear examples of these chapels in the Old Kingdom temples, the Pyramid Texts and New Kingdom temples allude to their existence in religious and funeral services and in rites of union with the sun disk in the New Year festival.

IBRAHIM, Somaya Abdel Khalek

Studies and treatment of one of Tutankhamun's Garments

Although much has been written about the discovery and subsequent excavation of the tomb of Tutankhamun on the 4 of November in 1922 in the Valley of the Kings, only a little has been written about his garments and textiles, which are the largest group of objects placed within the tomb, comprising more than 450 lengths of cloth and fragments of material. Howard Carter, the excavator of the tomb wrote, "The material from the tomb will be of extreme importance to the history of textile art and it needs very careful study."

Tutankhamun's sash (JE 62647, Carter 100F) from the Egyptian Museum in Cairo is the only complete sash of the Amarna pattern among his garments. The piece was made from a central back panel decorated with a complicated floral and geometric design, with two pairs of red ribbons ending with cartouches that contain the name of the king. The study includes the materials used, the woven design, the decorative technique and the technique used in the restoration of the Tutankhamun sash, in addition to a comparative study between the piece and similar pieces.

IKRAM, Salima

An Update on the Animal Mummy Project at the Cairo Museum

The Animal Mummy Project (AMP) at the Cairo Museum, co-directed by Salima Ikram and Nasry Iskander, started in 1998. Its aims are to record, study, and preserve the collection of animal mummies in the Cairo Museum. Animal mummies are of four types: victual mummies (funerary food offerings for humans); pets buried with their owners; sacred animals that were worshipped; and votive offerings, dedicated to specific deities. In the early days of archaeology many samples from all these categories were regarded as no more than curiosities, and often ignored or even thrown away after excavation, after which they were frequently used as fuel or fertilizer. Gradually their importance was recognised, and samples were collected and kept in museums.

The Animal Mummy Project has been deriving relevant information about the animal mummies through non-destructive techniques: X-rays and visual examination. More specifically, the following information from the remains are recorded: the genus and species of the animal, whether or not it is domesticated, any diseases it suffered from or might have been treated for by

ancient veterinarians, the type of environment it would have lived in, how it was killed, the method of mummification used, with details about evisceration, the use of pitch, the style of bandaging, etc. It is hoped that this work will provide information about mummification in comparison to that of humans, as well as helping to clarify the identity of the totemic animals of certain divinities such as Anubis. There has been considerable debate as to whether the god Anubis's votive animal is a jackal, a dog, a wolf, or a fox. By X-raying his votive mummies it will be possible to determine which animal the ancient Egyptians most closely identified with him, it is hoped that the study will lead to further conclusions about mummification in general, the identification of the ancient Egyptian names for animals with specific zoological species, the ancient environment, as well as the importance of sacred animals in Egyptian religion.

ISSAWI, Bahay

When the River Became the Nile

The history of the Nile encompasses several episodes, the last of these being the present river flowing south to north. Before that, Egypt witnessed several rivers running from east to west following the Oligocene upheaval of the Red Sea hills. The many fissures and cracks which resulted in response to this movement led to many rivers running north-south, like Qena river, the place of which is now taken by Wadi Qena. Qena became a watershed for rivers flowing north and south; the southern Allaqi river and a mighty river rushed south-westward to feed the radar rivers from south-west Egypt, described recently. Though these radar rivers are old features—predating man—the discovery of an Acheulian hand axe on the bank of one of these rivers proves that the rivers were active during Acheulian times. After the retreat of the Pliocene water from the Gulf occupying most of the present Nile valley, rejuvenation of old rivers flowing east-west and north-south took place. It was only during the Middle Pleistocene that the trapped Ethiopian and equatorial African waters jumped over the cataracts in north Sudan and rushed into Egypt. Capturing the many side rivers, this is what became the real Nile. It took Man several hundred thousand years to migrate from the safe deserts on both sides of the Nile to its banks. The migration was associated with drastic changes of the wet desert climates to dry and even arid. The changes were also related to the inversion of the earth's poles.

IVANOV, Sergej V.

The Aegis in Ancient Egyptian Art: Problems of Interpretation

The aegis, a cult object in the form of a deity's head surmounting a broad *wsh*-collar, first appeared in the XVIIIth Dynasty. It was very popular in the

Late Period. The Egyptian name for aegis is unknown but the reliefs and inscriptions of Karnak and Dendara temples let us consider it to be an iconographically complex form combining several meanings. The aegis first occurred only as an attribute of other cult objects. In the Third Intermediate Period (or somewhat earlier) it became an independent symbol used chiefly as an amulet. However, it never ceased to be a component of complex cult objects; hence the difficulty of the iconographical analysis. The author, who has written extensively on aegides in Russian, will discuss the meaning and the importance of the aegis in the personalization of religion in the first millennium BCE.

JAESCHKE, Richard L.

Reconstruction Not Restoration

The reconstruction of incomplete artefacts, from small potsherds to buildings, plays an important role in Egyptology. Conservators examine an object minutely during treatment and can produce an accurate reconstruction which is an extrapolation of known data, not an estimation based on the beliefs and fashions of the time. In the past this work has tended to be reserved for items in museum collections but a considerable amount can be achieved when reconstruction is undertaken during excavation.

Reconstructing an object in the field assists in the identification and collection of all its components and enables similar pieces from other objects to be segregated. The reconstructed object can be interpreted more clearly and size and shape measured more accurately. The reconstructed object can be appreciated and understood more readily by non-archaeologists and may form a vital part of communicating the results of Egyptological study via field reports, site publications and presentations to the general public.

Since the work of an excavation includes the preservation of the artefacts from the site, reconstruction may also need to be considered to enhance the preservation of the archive. Some items require reconstruction to provide them with structural support and stability. The collection and establishment of fragments in a more complete object is an excellent way to maintain their association, preventing them from being lost or damaged.

This paper includes practical examples of reconstructions in the field, illustrating and describing the methods and approach used, as well as an examination of the theory of reconstruction.

JASNOW, Richard

"And Pharaoh Laughed ..." Meditations on Humor in Demotic Texts

In this talk I wish to explore the subjects of humor and comedy within especially, although not exclusively, Demotic texts. After considering Demotic

expressions for the moods and emotions associated with humor, and the physical manifestations thereof (e.g., "joy", "pleasure", "happiness" and "laughter") I will discuss selected passages in which humor and comedy evidently play a role. I will conclude with remarks on the relationship between Demotic treatments of these subjects and those found in the earlier pharaonic and the Hellenistic literary traditions.

JIMÉNEZ-SERRANO, Alejandro

The First *Serekhs*: A New Model of Geo-chronological Organisation

In 1982, W. Kaiser and G. Dreyer proposed a chronological system called *Horizonten*, which divided in to three different stages the preceding period and the beginning of the First Dynasty. In general, this system was accepted by the scholars, but in the last years, E. C. M. van dem Brink proposed a new system which has not been published completely. In my opinion, the two systems have not taken into account the geographical origin of the inscriptions and, for different reasons, they suggested a linear system of succession, which I will show to be erroneous. In my opinion, the first *serekhs* had two different origins, which are related with two different conceptions about the representation of the ruler (name or institution). In the period of Naqada IIIa, the administration of the Delta represented the ruler as the palace (temple?)-facade due to Mesopotamian influence; however, in Upper Egypt the name of the king was written with the first hieroglyphs (tomb U-j). In this region, the name of the king was accompanied with a new element: the representation of the god Horus (a falcon; ie. *Iry Hor*). In the Delta, the name of the ruler was inscribed in the interior of the palace-facade or outside (*Ny-Hor* and *Hat-Hor*). The earliest representation which mixed both concepts (Delta and Upper Egyptian representations) appeared during the reign of king Scorpion II, but even during Narmer's reign the name of the king was found in a *serekh* (mixing Lower and Upper Egyptian traditions) or without it (Upper Egyptian tradition). Thus, the birth of the *serekhs* have two different origins: ideological (Delta) and phonetical (Upper Egypt).

JOHNSON, Edward D.

Conservation of the Decorated Dynastic Tombs at Hierakonpolis

Hierakonpolis, although most famous as predynastic site and for its related predynastic finds, also contains remains of decorated tombs covering all the great periods of Egyptian history, Old, Middle and New Kingdom and, in particular, a rare painted tomb from the time of Ramses XI.

Beginning in 1996, work was undertaken to secure the tombs and begin conservation work, subsequently carried out in 1998, 1999 and 2000 under a

grant administered by the American Research Center in Egypt and funded by the United States Agency for International Development (USAID). This paper will present the conservation difficulties presented by the tombs, each of which presented different problems many of which are common at sites with remains of decorated tombs, most of which were addressed with success. Detailed practical explanations of conservation procedures and materials will be provided to guide other archaeologists, Egyptologists and conservators who may face the same problems at their sites, in the hope that such information will enable them to conserve and preserve their ancient remains.

JOHNSON, Janet H.

Status Report on the (Chicago) Demotic Dictionary

This report will demonstrate the current status of the Demotic Dictionary. A CD-ROM containing an up-to-date version of the dictionary will be used for demonstration purposes.

JONES, Michael

The Work of the American Research Center in Egypt in the Tomb of Sety I

When Giovanni Belzoni entered the tomb of Sety I in October 1817 he was probably the first person to do so since the 22nd Dynasty. Belzoni was overwhelmed by the grandeur and beauty of his discovery but since then the tomb has deteriorated considerably. Belzoni himself began this process by taking wax squeezes of the painted reliefs.

Following its discovery the tomb rapidly became a major tourist attraction. During the 19th century every visitor to the Valley of the Kings expected to see it and as waves of visitors took their own squeezes, and in some cases fragments of the tomb itself, tourism was a major affliction.

The geology of the region, as well as the climate, have also acted against the preservation of the tomb. Frequent rain storms have caused flooding, which has in turn caused expansion and contraction of the rock that has led to structural damage in the tomb.

In 1998 and 1999 the American Research Center In Egypt, with funding provided under a grant from the United States Agency for International Development, conducted a comprehensive study of the current conditions in the tomb. These included environmental monitoring and assessments of the geotechnical situation, the state of the mural decoration, the arrangements for visitors and the available egyptological material. Detailed recommendations were made on how to proceed with the restoration of the tomb and its eventual display to visitors. Test cleanings were done in selected areas to determine what would be needed to clean and restore the mural decoration throughout the tomb.

This paper presents the results of these studies, showing the test cleanings and summarizing the recommendations made by the specialists involved.

JUCHA, Mariusz

Tell el-Farkha 1998-1999; Pottery from Predynastic and Early Dynastic Strata

Tell el-Farkha is situated near the modern village of Ghazala about 120km north-east of Cairo. At the present time the site consists of three tells (Eastern, Central and Western). The site was identified by the Italian Archaeological Mission of the Centro Studi e Ricerche Lingabue, Venice, in November 1987. The first work on the site was in 1988 and 1989.

Since 1998 the site has been investigated by the Polish Archaeological Mission from the Institute of Archaeology of the Jagiellonian University and the Archaeological Museum in Poznań.

The work concentrated mainly on the Western and Central tells during two seasons (1998-1999) of Polish excavations. The present data collected during research dates Tell el-Farkha from the Predynastic to Old Kingdom times.

This paper concerns pottery found at Tell el Farkha during two seasons of excavation in 1998 and in 1999. There are a few groups of vessels related to different periods of occupation of the site. Almost all the pottery was made of Nile alluvial clay. Only a small amount is made of marl clay and a few sherds are of foreign, probably Palestinian origin. Most of the pottery material collected during the excavation consists of thousands of undecorated sherds but there are also examples of complete vessels or decorated sherds.

KADOUS, Ezzat Z.

Coptic Sculpture: The Popular Vision in Egyptian Art

The artistic life in the late Roman period (3rd-4th centuries AD) was more complicated than the religious and the intellectual life. They constitute together the features of the civilized form of the Roman provinces, especially in the eastern area, which inherited the previous civilization.

The art of sculpture in that period witnesses a sort of decline and deterioration when compared with the sculpture style in the Classic and Hellenistic periods. Although it was more complicated than the intellectual aspect, it was a direct influence on the receiver, so that we can say that it declined to the level of the thought of popular people, who responded to it actively and expressed their sufferance either in the religious or in the social aspects, especially in the eastern societies of the Roman empire. So we can easily observe a popular artistic motion characterised by subjective influence, mixture, obscurity, imagination, and environmental symbolism. All of the

above is called Coptic art in Egypt.

The civilized necessity of this word—Coptic—in the art appeared in the intellectual life in Egypt with the spread of Christianity, especially after the 4th century, that this definition became important to express the religious privacy and the national privacy against the Roman occupation.

The art of sculpture and mural painting were very important elements. The Egyptian people discussed their ideas, religious and social ambition through a popular vision where Christianity played the main role during the 4th-6th centuries A.D.

KAHN, Dan'el

The Inscription of Sargon II at Tang-I Var and the Chronology of Dynasty 25

This article is based on new information from an inscription of Sargon II, king of Assyria, which was (re)published by G. Frame in "The inscription of Sargon II at Tang-I Var", *Orientalia* 68/1 (1999): 31-57. The text mentions the rebellion of Iamani, king of Ashdod, against Sargon in the year 712 BC. and his flight to the king of Kush. According to the inscription, king Shabataka, who was ruler of Kush in 706 BC., extradited Iamani to Sargon before the year 706 BC. In the following article I attempt to rule out an assumed coregency between Shabaka and Shabataka or a proposed division of the kingdoms of Egypt and Kush between Shabaka and Shabataka, respectively. I date Shabaka's reign to 721-707/6 BC. and Shabataka's reign to 707/6-690 BC. The historical implications of this chronology effect the foreign relations of Egypt and Kush with Assyria in the years 716, 720, 726 and 734-732 BC.

KÁKOZY, László

Horus on the Crocodiles

The way the Horus cippi were thought to transfer their power to the patient is well known. Water was poured over them, and having washed over the inscriptions, it absorbed their power and became a patient drug against scorpion-stings and snake-bites. In the last years important steps were made to establish the history of these monuments. Doctor Stemberg-el Hotabi published a preliminary catalogue of the pieces scattered all over the world in many museums. The author of this abstract has made studies in the magical healing statues holding a Horus cippus. Besides the inscriptions also the illustrations carved on these statues and on the cippi are important because they can be used as sources to study theology in the Late Period. The Museum of Fine Arts in Budapest acquired recently (1996) a remarkable Horus stela. The front part is dominated by the head of Bes, the back bears

an abridged version of text A of the cippi. The first part of Text B is written on the left side of the stela. The composition as a whole and especially the snakes of imposing size on the left and right as well as on the base make the stela a remarkable product of late-Egyptian art.

KALOS, M. et M. NELSON

La chapelle de la reine blanche à Thèbes-ouest: Nouvelles données sur l'histoire du site

Une équipe de l'URA 1064 au CNRS français travaille, depuis cinq ans au redégagement d'un monument, découvert par Flinders Petrie en 1896, à l'ouest du temple de «millions d'années» d'Aménophis II et immédiatement au nord du Ramesseum. Le superbe buste de reine anonyme, en calcaire blanc, que le fouilleur y mit au jour, lui valut le nom de «chapelle de la reine blanche».

Cette reine a, depuis, été identifiée comme étant Meritamon, fille de Ramsès II et de Nofretari, et c'est pourquoi cette concession a été intégrée à celle du Ramesseum.

La première campagne de fouilles révéla très vite, grâce aux nombreuses briques estampillées, que le monument d'où provenait cette statue, n'avait rien de ramesside, mais qu'il avait été fondé par Aménophis IV. Par ailleurs, le plan montre qu'il s'agit non pas d'une chapelle tripartite, comme l'avait suggéré Fl. Petrie, mais de deux chapelles jumelles, d'orientation est-ouest, séparées par un espace résiduel et précédées d'une grande cour. Le mur nord de cette cour est accolé perpendiculairement à un édifice en briques crues au nom de la reine Hatchepsout.

Ce complexe endommagé par l'aménagement de tombes à la Troisième Période intermédiaire, recouvre lui-même des sépultures remontant au Moyen Empire, et a été édifié sur une épaisse couche de débris de céramique et de cendres qui proviennent d'installations culinaires de plein air, ayant connu une grande activité à l'époque d'Aménophis III.

La redécouverte du site, la présence inattendue de ces témoins de la fin de la XVIIIe dynastie notamment, apportent de nouvelles données sur l'occupation des lieux pendant plus d'un millénaire et comblent quelques lacunes historiques.

KAPER, Olaf E.

The Egyptian God Tutu

In preparing a monograph on the Egyptian god Tutu (Tithoes), several new facts about this deity have emerged. The origin of the god is to be sought in a local cult of the city of Sais, which is first mentioned in the 26th Dynasty. The popularity of the god became nationwide only during the early Ptolemaic period, as is shown by the widespread use and frequency of the god's name

in onomastics from that time onwards. The iconography of the god may be that of a pantheistic deity but, unlike the case of Bes, no specific relation with magical practices can be demonstrated. Depictions of Tutu are known especially from votive stelae of which more than 60 are preserved.

A temple to the god was discovered in 1991 in the Dakhla Oasis at the site of Ismant el-Kharab. Much information about the god may be gathered from the mammisi of this temple. As the son of Neith, Tutu was chiefly a manifestation of the sun god. His principal domain was the temple, where the god is occasionally found closely associated with Amon-Re.

KASHIWAGI, Hiroyuki

Ramesside Building Activities on the Monumental Building of Khaemwaset

During the Ramesside period, it is recognized that, although a great number of buildings were constructed everywhere in Egypt, the quality of them had declined. Recent investigations into Ramesside buildings, however, presented us much new and noteworthy information. On the basis of them we can study Ramesside architecture and building activities comprehensively.

The monumental building of Khaemwaset on the hilltop at Abusir-North Saqqara detected by Waseda University is also dated to the Ramesside period. As a result of our investigations, it was clear that the style of the building was a copy of Old Kingdom monuments, for example the lotus-form column was greatly similar to that of the mastaba of Ptahshepses in Abusir. In addition, several efficient ways to construct were observed, for example positive use of re-used blocks and mortar.

There seem to be common points in Ramesside buildings. The highly efficient methods of work made possible the construction of enormous numbers of buildings. Taking Prince Khaemwaset's historical part into consideration, the building of his might occupy an important position in the Ramesside period, and our detailed analysis could be a great contribution to future research on Ramesside architecture and building activities.

EL-KATAFANI, Usama

Religious Life in Egypt in the time of Christianity

During the first century AD, both the historical heritage and the actual religious life under the Romans introduced 'religious duality' based on the social and educational divisions of Egyptian society. Philosophical doctrines spread among the educated classes while the lower classes believed in the polytheistic system derived from pagan thought. Foreign religious thought during this era was not strange to the Egyptians. They welcomed it just as they did the political and military foreign existence since the time of Greek mercenaries under Amasis, the Persians and the Ptolemaic supremacy. This

imposed religious confusion and multiplicity and the Egyptian capital of Memphis became a centre of Asiatic and foreign gods and cults from the 26th to the 30th dynasties.

Throughout the period of conversion from local to foreign gods, the peasantry and lower strata of Egyptian society seemed untouched or little influenced by Greek or Roman activity. When Egypt became part of the Roman Empire, she maintained her national characteristics and her ancient religion which was hardly touched by Hellenistic influences. The Egyptian people had only two things in common with the other provinces of the Roman Empire—taxes paid and emperors worshipped. The whole religion of Egypt was dominated by the veneration of a god by whose means the power of death was annihilated.

KATAMECH, Amani Mohamed Sabri

Les noms propres des étrangers en Égypte ancienne

Les différents noms propres que pouvaient recevoir les étrangers en Égypte ancienne, étaient l'objet de plusieurs études approfondies.

Les étrangers installés en Égypte, comme les Asiatiques, les Égéens, les Nubiens et les Libyens, avaient en général deux noms: un nom complet ou abrégé égyptien et un nom caractéristique de leur pays d'origine ou un sobriquet non égyptien.

Dans les listes nominatives, on trouve leur nom de naissance, inscrit dans la première colonne de ces listes. Les enfants des immigrants nés en Égypte portent régulièrement des noms purement égyptiens, mais à leurs grands enfants étaient offerts des noms étrangers comme une sorte de souvenir de leur origine familiale.

Ces étrangers étaient parvenus en Égypte comme prisonniers de guerre ou indépendants. Ils exerçaient leurs professions librement dans toutes les régions. Plusieurs de ces étrangers ont pu occuper des positions considérables dans la société égyptienne. Ils ont formé des colonies et résidaient dans quelques cités égyptiennes spécifiques, comme Tell el-Dabaa, pendant le Moyen Empire et la Deuxième Période intermédiaire, et Deir el-Medineh, pendant le Nouvel Empire.

Les noms personnels de ces étrangers sont parfois formés d'une seule unité ou de deux unités.

KENDALL, Timothy

Gebel Barkal: New Kingdom and 25th Dynasty Coronation Center and "Ka" of the Royal Crown

Researches at Gebel Barkal undertaken during the 1980s have revealed that the 74m high pinnacle on the south corner of the mountain was anciently conceived of as a natural colossus of a uraeus. Excavations since 1996 have

confirmed the existence there of a coronation center of an Eighteenth Dynasty date, just like that described by Horemheb in his coronation inscription (JEA 39, 1953, 15ff.). Surprisingly, an architectural cartouche of Horemheb has actually been retrieved from the ruins, which consist of a palace, a *Pr-nsr*, and a *Pr-wr* (built directly beneath the pinnacle). These structures were entirely rebuilt and restored during the 25th Dynasty and were apparently used by the Kushites to justify their own claims to Egyptian kingship. It is now clear from the text of the Nastasen stela that the mountain had been identified as a source of kingship because it looked like a royal crown and was thought to be the "ka" of the crown of Re-Horakhte." Slides will reveal that its silhouette is precisely that of the Kushite cap crown, which must have been deliberately designed to imitate it.

EL-KHOLI, S.

The Lost Statue of the Mate of the Sphinx

Many Arabic historians have referred in their literature to a wonder statue (a colossus) of a sitting woman with a child on her lap. This statue was known as the mate of the Sphinx, since it stood on the same axis as the Sphinx. It stood once on the east bank of the Nile (in Fustat). Now it is lost. The writer tries here to identify this statue, and to assess its real connection with the Sphinx.

KINDERMANN, Karin

Djara: Prehistoric Links between the Desert and the Nile

Djara, in historic times only known by several caravan leaders as a stalactite cave in the desert, is situated directly in the middle of the Abu Muharik Plateau (Western Desert). This implies a distance of 150km to the fruitful lands of the Nile Valley in the east and nearly 200km to the green oases of Farafra and Dakhla in the west and south-west. Its position as a geographical mediator between two fertile regions, next to an old camel track, gives Djara a special meaning in addressing the question of prehistoric contacts between the desert and the Nile.

For a long time the rich archaeological site around the cave remained unnoticed. Investigations started in 1990 and continued until the year 1999. A lot of different bifacially retouched tools were found, for example, various sorts of arrowheads, knives, leafpoints and side-blow flakes. Some of the scrapers and especially the bifacially retouched knives are comparable to predynastic as well as to neolithic stone artefacts. Further examinations allowed some facially retouched arrowheads, found in a fireplace, to be dated into the Middle Neolithic (7700–6200 BP). A workshop for side-blow flakes may indicate a Late Neolithic (6000–4500 BP) occupation. These tools are often reported from archaeological sites in the Kharga and Dakhla region as

well as from different places in the Western Desert; very few, however, were documented for the predynastic Nile Valley. It seems that this type of artefact and technology points to further links between these two areas.

KÖHLER, E. Christiana

New Excavations at the Early Dynastic Cemetery at Helwan/Ezbet el-Walda

The site Helwan/Ezbet el-Walda, located around 25 km south of Cairo, is best known from its previous investigation by Zaki Saad between 1941 and 1952 which resulted in the discovery of more than 10.000 graves and a large body of artefacts. This large number of graves alone strongly suggests that the necropolis is the major burial ground for the inhabitants of early Memphis. Since 1997 the Australian Centre for Egyptology at Macquarie University Sydney has been conducting work on this Early Dynastic cemetery. The major aims of the new project are to survey and selectively re-excavate the site, to study the architecture of its tombs, to record the artefacts found by Saad so as to reconstruct the original grave assemblages, and finally to establish a detailed spatial and chronological development of the necropolis. It is hoped that this new investigation will provide a scientifically more substantial and secure database for the analysis of the social organisation of early Memphite society than has been available to date. This paper will give an overview of the results of the first three seasons of the new excavation of the site as well of the concurrent study of its artefacts in the Egyptian Museum in Cairo. Ten tombs have been studied in detail and provide fresh insights into different aspects of Early Dynastic burials. As five of these newly explored tombs have never been excavated before they provide critical information on poorly understood aspects such as the construction of the mastaba superstructure or the spatial organisation of burial chambers.

KOLATAJ, Wojciech

Some Remarks Concerning the Hieroglyphic Signs *tsi*, *wts*, *wtst* and their Importance for understanding Vertical Transport in the Old Kingdom

Inspired by the meaning and the orthography of the signs: *tsi*, *wts*, *wtst* as well as recent archaeological and structural investigations at Giza plateau, the author proposes a new hypothesis concerning a mechanism of the vertical transport of materials at high-rise level buildings. The presumed device would have been a sort of simple lever or balance which would be in conformity with Herodotus' text. A mathematical analysis of the preconditions regarding various cases that may have occurred in the process of work has been carried out. Such a device will be illustrated with film showing that both friction forces and complicated operations to be carried out by thousands of skilled workers could be easily eliminated.

KONDO, Jiro

So-called "Enigmatic" Ostraca from the Western Valley of the Kings

Seventy-four years after Howard Carter's work at the royal tomb of Amenophis III (KV 22) in the western Valley of the Kings, in September 1989, during clearance of the area between KV 22 and KV A, eleven limestone ostraca and a pottery ostrakon were recovered bearing cryptic "texts" or "marks" in black or red inks. Similar ostraca had been found in Deir el-Medina and the main Valley of the Kings. We have also found a number of pottery fragments with an incised mark. These marks are exactly the same as the marks we found on the ostraca. The French Egyptologist Georges Daressy suggested that each symbol may represent the name of a worker, and that the dots on the ostraca mark their working days. This interpretation is quite possible, but we need further study in order to solve the mystery of the two ostraca with the same sequence of marks. Bruyere reports that the enigmatic ostraca from Deir el-Medina belong to the Ramesside period; however, this dating is doubtful. All the findings from the ancient Egyptian period in the western Valley of the Kings belonged to the end of the 18th Dynasty. This suggests that the enigmatic ostraca may also belong to the 18th Dynasty rather than to the Ramesside period. This may suggest that we may need to reconsider the chronology of Deir el-Medina itself.

KORMYSHEVA, Eleonora

Studying Khafraankh Tomb G 7948 and the Adjacent Area

The paper presents the results of the work of the Russian archaeological mission in Giza during 1996-1999.

I- Tomb G 7948.

1. Corrections of the copies of the reliefs of the funerary chapel with comparison with Lepsius' publication. Eastern wall: Iteti figure, boats, "stela of the Harvest goddess", musicians, deceased with dog, bringing fish, heaping ears of grain. Southern wall: details of food offerings, the scene in the 3rd register absent in Lepsius' drawing. Western wall: new details and the whole reconstruction of the representations on the niches.

2. Results of cleaning the shafts and funerary chambers: specifics in construction, unusual burial place, blocks with hieratic signs.

3. Studying and dating the pottery found: 177 diagnostic pieces including a Palestine jar and a Meidum bowl.

II. Cleaning the adjacent space to the north of Khafraankh's tomb has given evidence of two new burials. Proposed dating not earlier than New Kingdom.

III. Results of cleaning the area around Khafraankh's tomb.

1. Southern area: the remains of a mud-brick wall, probably connected

with the traces of a burial recorded on the western wall of the burial chamber of Khafraankh's wife.

2. Northern area: 6 new shafts cut in the rock platform.
3. Southern area from the rock platform: a mud-brick chapel of L-shape form with the entrance from the extreme eastern side. Preliminary dating: First Intermediate Period–Middle Kingdom.

KOUSOULIS, Panagiotis I.

The Function of *Heka* as a Mobilised Force in a "Theological" Environment: the Apotropaic Ritual of Overthrowing Apophis

Although the majority of references and performative details about the ritual against Apophis have been developed explicitly in the *Apophis Book* of the P. Bremner-Rhind and the reliefs on the Ptolemaic temples, the ritual itself probably originated at a much earlier date and well expanded beyond the Ptolemaic Period. The first reference to Apophis by name comes from the tomb of a local ruler at Mo'alla and is dated around 2100BC, but the first hint of a performative action against him appears in the Coffin Texts of the Middle Kingdom, completely integrated within the funerary liturgies of that era. The youngest example of the ritual comes from a spell in a Greek magical papyrus dated in the Roman period, where a serpent is named after Apophis and destroyed. Throughout this time span of almost 3000 years, evidence about the nature, symbolism, functions, and special performative characteristics of the ritual have been scattered within the multicoloured context of a vast corpus of material, combined with various symbolical, mythological and religious elements. This paper will address certain aspects of the ritual that enhance and emphasise a performative unity between magic and religion within a certain cultic environment. The notion of *Heka* as a catalytic and mobilised force will be underlined, and questions concerning its nature will be re-examined: was *Heka* pre-existent or was it a human invention to explain the unexplained and control situations beyond its nature, or was it a personification of the power of ritual?

KREJCI, Jaromír

The Appearance of the Abusir Pyramid Necropolis during the Old Kingdom

Nowadays, scientific work in Egyptology is impossible without the help of the computer. One of the fields where computers can help us very much, is in the making of three-dimensional reconstructions of ancient monuments. This use of computers has intensified during the last decade of Egyptological research.

Computer software was in this respect applied in the course of the work on the author's PhD. thesis concerning the building and historical development of the Abusir pyramid necropolis. On the basis of a thorough study of the historical, archaeological and architectural data of the period when it was used as a royal necropolis, a three-dimensional reconstruction of the monuments on the pyramid field was created. The archaeological research of the Abusir pyramid field done by the Czech Archaeological Mission in the last two decades brought new data. Therefore, the need ensued to produce a new three-dimensional visualisation of the field, which changes in some respects Borchardt's view of the pyramid field appearance. For the preparation, one of the CAD ("computer-aided design") software programs was used.

KROL, Alexei A.

The Preservation of Ancient Egyptian Objects in Russian Museums

Although the collections of the Pushkin Museum in Moscow and of the Hermitage in St. Petersburg are well known and in good condition, there are a number of other collections in Russia and the Republics of the former USSR that are virtually unknown and in critical need of conservation. In the course of the documentation of the collections for the Databank of Eastern European Egyptology (DEEE), a project of the Department of Egyptology, Institute of Oriental Studies of the Russian Academy of Sciences and the Gnosarch Foundation, Basel, Switzerland, the author has compiled a corpus of digital photographs showing details of the state of preservation of the objects, many of which were allowed to deteriorate in the period following the 1917 revolution. A major purpose of the DEEE is to make these objects and their condition known to the international community of Egyptologists. This paper presents the databank project and its meaning in the globalisation of Egyptological knowledge and preservation of the heritage of Humankind.

KRUCHTEN, Jean-Marie

Late Egyptian Verb forms built by means of the auxiliary *iri* from the second part of the XIXth dynasty until early Demotic

In *Lingua Aegyptia* 6 (1999), 1-97, I explained how the verb forms built by means of the auxiliary *iri* appeared at the end of the XVIIIth dynasty (during Amenhotep III–IV's period) as a result of the loss of the two main markers of the ME verbal system, the suffixal *.n.-* and the duplication.

At the end of the XVIIth dynasty, all the *sdm.n.f* verb forms lost their suffixal *.n.-* except the emphatic *sdm.n.f*, which was stressed differently, and the compound verb forms which were built with this emphatic *sdm.n.f*. Thus,

the non-emphatic *sdm.n.f* as well as the relative *sdm.n.f* had already dropped their *.n.-* and become *sdm.f* at the beginning of the XVIIIth dynasty, while the emphatic *sdm.n.f* and the Negative Aorist *n sdm.n.f*, because it has to be analyzed as *n* + an emphatic *sdm.n.f*, kept on theirs until the end of the XVIIIth dynasty. It is the eventual disappearing of the suffixal *.n.-* from the emphatic *sdm.n.f* and from the Negative Aorist (*n sdm.n.f*) or other verbal formations which were built with the emphatic *sdm.n.f*, together with the disappearing of the geminating verb forms (nominal and relative *sdm.f / mrr.f* and imperfective participle *sdm / mrr*), which happened to occur at about the same time, during the Amarna Period or a little earlier, which triggered some of the most drastic changes of the whole Egyptian verbal system's history.

From the few unmarked ME verb forms which survived these phonetic changes because they comprised no such markers or because they had already lost their suffixal *.n.-* by this time (non-emphatic and relative *sdm.n.f*) were derived new marked verb forms. These were obtained by substituting *iri* for the main verb and by using the infinitive thereof as the direct object of this new auxiliary. As might be expected, these periphrastic patterns stood in complementary distribution with the simple verb forms or other patterns inherited from ME which belonged to the same syntactic category, either in ternary (present / past / prospective) or binary (nonmodal / modal) opposition according to whether there were two or one ME verb form left in this very category.

On the other hand, beside this basic use as a marker to build up the new verb forms which took the place of the disappeared *sdm.n.f* or geminating ME verb forms, the verb *iri* had already lost, at the end of the XVIIIth dynasty, its full meaning so as to act as an auxiliary in two other much rarer occurrences.

I would like to examine how, during the span of time between the XIXth dynasty and the early Demotic (1300-700 BC), the employment of the auxiliary *iri* gradually spread from these few basic uses attested at the beginning of the XIXth dynasty ([1] as a marker to distinguish new specific verb forms from unmarked old ones and, as an accessory, [2] as a mandatory auxiliary of verbs of more than three consonants or [3] as a strengthener of the vetitive *m* of the negative imperative) to all the suffixal verb forms still existing in LE, if we except the perfective active *sdm.f* of the verbs of less than four consonants, which was also bound to be periphrased by means of *iri* but much later during the Roman Period.

KUHLMANN, Klaus P.

The Ammoneion Oracular Complex at Siwa Oasis: Excavations and Restoration conducted by the DAI 1993-1999

Although the XXVIth Dynasty Temple of the Oracle on Aghurmi Hill is modelled on Egyptian religious architecture, various technical details—opus pseudo isodum masonry, the use of anathyrosis, claw chisels and lewis

holes—show it to have been erected by Greek rather than Egyptian builders. Egyptian-style shaft-tombs are located under and in close proximity of the sanctuary leading one to believe that a “royal” necropolis existed on the hill alleged to have been the traditional abode of the indigenous rulers. At the XXXth Dynasty site of Umm Ubaydah evidence for extensive building operations post-dating the Nectanebo II temple was discovered. At the foot of Aghurmi Hill excavations yielded a stretch of blocks that at this stage could be interpreted as forming part of a dromos for staging the public processional oracles. Adjacent to the west, at least one other and possibly Doric-style monument made up this extended (approx. 450m x 70m) complex during the Greco-Roman period. Parts of the foundations with Greek mason's marks etched into several blocks were found there. The Temple of the Oracle perches dangerously close to the edge of the mountain, its northern part threatening to collapse and drop off the cliff. The situation called for a reinforcement of the decaying bedrock and of the disengaging masonry by introducing various types of grouted anchors. In co-operation with scientists and specialists from the University of Karlsruhe's Special Research Projects dedicated to “Preserving Historically Important Buildings” (SFB 315) the perilous situation has now been contained.

KUPER, Rudolph

The Abu Ballas Trail: Pharaonic Advances into the Libyan Desert

Abu Ballas is a small, conical hill in the far west of Egypt which, curiously enough, can be found even on one to one million maps. Among thousands of similar hills this one is singled out by having been named by John Ball who passed through this then almost unknown part of the Libyan Desert during a geological survey in 1918. At the foot of this inconspicuous sandstone cone 500 km west of the Nile he discovered more than one hundred big jars, which led to its Arab name meaning “Father of Jars” or “Pottery Hill”.

There have been many speculations about the origin of this dump which until recently ranged among the “Mysteries of the Libyan Desert”. There were stories about Tubu robbers who used this place as a base for their raids against the oases, but archaeological evidence pointed another direction. The shape of most of the jars correspond to pottery from the Old Kingdom, when, especially during the 6th dynasty, pharaonic culture flourished in the Dakhla oasis; a smaller number of them correspond to amphorae from the New Kingdom. Pharaonic influence can also be detected in two rock engravings which were discovered by Prince Kemal el Din in 1924 at the hill slope.

The notion that this isolated pharaonic evidence in the barren desert more than 200 km south-west of Dakhla oasis represents a donkey-caravan station along a route bound west towards Cufra, or south-west towards Djebel Uweinat and further on to central Africa, has been confirmed by recent discoveries. Ongoing surveys and excavations reveal increasing support for

this hypothesis but so far the question of the purpose of such a trail remains unanswered.

KUPER, Rudolph

Saving Egypt's Earliest Cultural Heritage

There is growing public awareness of Egypt's deserts, also related to the nation-wide discussion of the Toshka Project. The unlimited wastelands that cover more than 90% of the country's surface are an unexploited treasure in view of their economic potential and their attraction to tourists.

The desert's virtues can only be utilised as long as the natural environment and the omnipresent heritage of the past remain undisturbed. However, unavoidable land reclaiming and mining projects, and most of all the increasing desert travel by tourists as well as by different groups of professionals are causing more and more irreparable destruction. The desert environment is particularly sensitive to human traffic and the archaeological sites are much more fragile than the brick and stone monuments of the Nile Valley. This especially concerns the remains of the period between 10,000 and 5,000 BC, when, as shown by recent research, the roots of Egyptian civilisation developed in areas now occupied by the desert. So, paradoxically, right at the moment when Egypt returns to where it came from, basic evidence for its origins is being jeopardised.

The paper gives examples of actual risks to archaeological sites, proposes measures to exert at least a minimum of control and protection, and discusses the idea of an Archaeological Desert Survey of Egypt.

KURASZKIEWICZ, Kamil Omar

Some Problems Concerning the Vizier Merefnebef

Monuments excavated by the Polish-Egyptian Archaeological Mission at West Saqqara have provided the evidence of a hitherto unknown vizier, named Merefnebef who lived in the last phase of the Old Kingdom. The decoration and architecture of the tomb of Merefnebef indicate that official activity of this dignitary is most probably to be dated to the turbulent period of the first kings of the VIth Dynasty. However, both the life and the burial of Merefnebef are full of open questions. He has had, for example, at least three names and at least four wives. His other titles seem too modest in the company of the title "vizier". This paper deals with stages of his career as well as with the certain aspects of his private life. We would suggest his place among the early VIth dynasty viziers.

LAVRENTJEVA, Maria U.

Some Peculiarities of Ancient Egyptian Dramatic Texts

In considering the Ramesseum Dramatic Papyrus, the mythological section of the Memphite Theology, and the 'Triumph of Horus' from the temple of Edfu, the author will illustrate various aspects of the dramatic texts as to what may be called religious or ritual drama. The nature of such rites and the possible venues of their performance as well as possible performers will also be discussed.

LAX-BOJTOS, Suzanne

The Development of Ear Decoration in Ancient Egypt

The purpose of this paper is to discuss the development of ear decoration in ancient Egypt and to suggest its possible origins.

It is often stated that ear decoration was sported in ancient Egypt from the New Kingdom onwards. It is true that during the New Kingdom earrings were worn by many, but there is earlier evidence of their existence. Objects, identified as ear studs, were found originating in the Badarian period. There is possible evidence of ear decoration on a statue of an Old Kingdom scribe. The Middle Kingdom and the Second Intermediate Period give further evidence. Earrings were found in non-royal graves and on female statuettes. Ahhotep was the first royal lady who included earrings in her funerary equipment, and from the beginning of Dynasty XVIII, the fashion of earrings or ear studs spread quickly among the royals, the elite and ordinary people.

Scholars maintain that either the Nubians or the Hyksos influenced the Egyptians in taking up the fashion of ear decoration. It is the wish of the author of this paper to re-examine this opinion.

LEBEDINSKY, Victor V.

The Potential of Egyptian-Russian Co-operation in Underwater Archaeology

Although underwater archaeology is a relatively new science in Egypt, it has become a sophisticated and methodical area of scientific development. The Government of the ARE pays much attention to underwater research. Some special state institutions have been established, such as the Department of Underwater Archaeology of the State Committee of Antiquities for excavations dealing with problems of underwater archaeology. The successful underwater research being conducted now in the ARE are integrating all the experience which has been gained since the advent of this science more than one hundred years ago.

The author, himself an underwater archaeologist with extensive experience in the Black Sea, will discuss the importance of collaboration between Egypt and Russia in this science.

LEBLANC, Christian

La véritable identité de Pentaour, le prince «maudit»

Les dernières années de règne de Ramsès III sont assombries par de très graves incidents à Thèbes: un complot mené contre le roi et, parallèlement, une crise économique-sociale qui finit par déstabiliser la région.

Ces deux événements sont-ils réellement indépendants l'un de l'autre, ou doit-on, au contraire, y reconnaître une association d'idées et de faits qui aurait finalement abouti à une anarchie locale? Pour tenter de répondre à cette question, ou du moins renouveler le débat sur ce sujet, il convenait de reprendre le dossier de la famille royale et du complot, en nous fondant non seulement sur les textes mais en nous aidant également d'une nouvelle lecture des théories principales du temple de Medinet Habou et d'une analyse minutieuse des tombes, aménagées sous ce règne, dans la Vallée des Reines.

Qui était vraiment Pentaour, le prince condamné à «se donner la mort lui-même»? Quel rang réel avait occupé sa mère à la Cour? Pourquoi ce complot fut-il ourdi contre Ramsès III? Enfin, comment expliquer la soudaine crise économique-sociale à Thèbes, alors que les domaines d'Amon, à Karnak, semblent encore très prospères et que les greniers paraissent regorger de victuailles?

LEBLANC, Christian, Guy LECUYOT et Mahmoud MAHER-TAHA

Documentation, recherches et restauration au Ramesseum:

Bilan et perspectives

Près de dix années se sont écoulées depuis la présentation, au Congrès de Turin, du projet d'étude et de sauvegarde du temple de «millions d'années» de Ramsès II à Thèbes-Ouest. Dans le présent exposé, il est question d'établir le bilan de nos interventions et de dégager les perspectives des recherches et travaux à venir.

Documentation [Mahmoud Maher-Taha]. Au cours des missions effectuées au Ramesseum, une large part a été accordée à la documentation, à celle du temple d'abord, mais aussi à celle qui est en relation directe avec cet important mémorial. C'est ainsi qu'aux études consacrées à l'architecture et au décor permettant déjà de mieux comprendre le fonctionnement cultuel de l'édifice, est venue se greffer, en parallèle aux fouilles menées dans le complexe administratif, une importante collecte documentaire enrichissant de façon notable nos connaissances sur le rôle économique que remplissait, à l'époque ramesside, ce temple de «millions

d'années». Ce sont ces sources complémentaires et indispensables à la recherche que relèvent et rassemblent les équipes du Cedae, à partir des tombes thébaines, notamment celles qui ont appartenu à des fonctionnaires du Ramesseum.

Recherches. Fouilles et Études [Christian Leblanc]. Un certain nombre d'opérations, conduites ces dernières années, renouvellent, à partir des fouilles et des études, l'histoire du Ramesseum. Dans le temple proprement dit, les recherches entreprises sur l'architecture et le décor permettent de mieux préciser son évolution dans le temps ainsi que de mieux comprendre les grandes lignes de son fonctionnement. Toute la zone arasée correspondant au sanctuaire est actuellement en cours de fouille. Dans le complexe économique, d'importantes installations, à mettre en relation avec les cuisines du temple, ont été mises au jour du côté sud. Les dégagements menés notamment dans les secteurs B''' et D''' ont livré un nombre appréciable de vestiges qui viennent confirmer cette identification. L'étude de la statuaire, en particulier celle des colosses de la première cour, apporte des informations nouvelles sur leur installation et leur destruction. Comme sur beaucoup de sites archéologiques en Égypte, l'exploration du Ramesseum met en lumière des occupations postérieures à l'époque ramesside. La Troisième Période intermédiaire mais aussi l'époque chrétienne y ont laissé des témoignages éloquents.

Conservation. Restauration et Mise en valeur du site [Guy Lecuyot]. Complémentaires aux recherches, les travaux de conservation et de restauration ont essentiellement porté, jusqu'ici, sur la seconde cour du temple, dont le programme est bien avancé. Certaines opérations d'urgence ont pu être également menées, notamment sur le premier pylône, à propos duquel un projet de sauvegarde est d'ailleurs en cours d'étude. Dans le complexe économique, des travaux de conservation ont été entrepris pour les structures en brique crue, permettant, en particulier, de préserver des intempéries et de sauver de la ruine les vestiges du mur d'enceinte ainsi que les arases de plusieurs bâtiments du secteur sud. Dans la grande salle hypostyle, une autre intervention a porté sur le nettoyage des couleurs des colonnes de la travée centrale. Toutes les actions menées dans le contexte du temple par le Conseil supérieur des antiquités et l'Association pour la sauvegarde du Ramesseum, s'appuient sur les recommandations de la Charte de Venise approuvées, en 1964, lors du IIe Congrès international des architectes et des techniciens des monuments historiques, et adoptées par l'Icomos en 1965.

LECLÈRE, François

New Data on Burials of Osirid Figurines: the So-Called Saite Vaulted Tomb at Karnak

While the reconstitution of the decoration of the Osirian catacombs at Karnak, built under Ptolemy IV, is in progress, inferring parallel research on Osiris of

Coptos and the gods associated with his resurrection (see the paper of Laurent Coulon), the fieldwork going on at the site provides new data on inhumations of Osirid figurines and the development in three phases of the local dummy cemetery. The last seasons have been devoted to the vaulted, fired brick-built tomb, exposed and very partially explored in 1950, dated to the Saïte period by the presence of Necho II stamped bricks. The first results of the architectural period of use probably exceeds the reign of Necho. Each room is filled with niches very close to those of the earlier cemetery. The figurines enclosed are very similar, too, with some new elements (bead nets, resinous tarred shroud, "benenet," mud pellets, amulets, etc.). The newly accumulated archaeological material allows comparison with other ancient finds in Tehneh el-Gebel, Touna el-Gebel and Wadi Qubbanet el-Qurud, and with the recipes of manufacturing such figurines reported in the inscriptions of the Osirian chapels at Dendara and some papyri such as P. Salt 825. These comparisons enable us better to grasp the reality of Khoiak rites and to show up the original feature of those performed at Karnak during the 1st millennium BC.

EL-LEITHY, Hisham

Letters to the Dead: A Comparative Study between Antiquity and Modern Egypt

Comparative study in Egyptology is one of the most interesting topics, attracting both Egyptian scholars and foreigners. It is not unusual for Egyptians to communicate with their dead relatives. These letters to the dead were not written for sending greetings, but for asking for assistance and help. Letters to the dead show that the living people who felt injustice turned to the dead hoping that the dead would help them and they could expect the dead to act on their behalf if they had been slighted. They also might feel afflicted by the dead whether they were at fault or not.

Letters to the dead exhibit a fundamental distrust of law courts and civil authorities. The common people who felt this distrust preferred to seek the aid of some strong and influential acquaintance. In both ancient and modern letters, we noticed how persons who tried to obtain their rights could become the victims of double dealing. Until now, fifteen letters sent to deceased relatives have been found. They were written in hieratic and date from the Old Kingdom to the second half of the seventh century B.C. The same type of letter has been found addressed to ancient Egyptian saints such as Hekayeb from the Middle Kingdom, and Amunhotep son of Hapu from the New Kingdom. There are also many letters sent to gods, written in Demotic. Letters to gods and saints overlapped and then replaced the ancient letters to the dead in later periods. Nowadays, in modern Egypt, we find that this phenomenon continues today in letters addressed to the Imam Esh-Shafe'ee.

LEITZ, Christian

The Dictionary of Egyptian Deities and Their Designations

With the financial support of the 'Deutsche Forschungsgemeinschaft,' Christian Leitz is working with several collaborators (Peter Dils, Lothar Goldbrunner, Daniela Mendel, formerly also Dagmar Budde) on a dictionary of Egyptian deities and their designations (epithets). The project started in 1995 and has financial support until the year 2000, but for the completion, three more years are considered necessary.

The dictionary does not collect material on the so-called major deities, e.g. Osiris or Amun (with the exception of iconographic details), because for these deities, other dictionaries exist (e.g. *Lexikon der Ägyptologie*). Their epithets are however included. The lecture explains the structure of the dictionary and gives examples for the eight different categories of the lexicographical entries. The present status (autumn 1999) contains about 50,000 headings with approximately 110,000 references and more than 75,000 cross-references. In the end the dictionary will comprise several volumes with more than 60,000 headings and about 150,000 references mainly from religious texts.

LESKO, Leonard. H.

Nubian Influence on the Later Versions of the Books of the Dead

Niwnski has pointed out some major shifts in the 21st Dynasty versions of the *Book of the Dead*, and I have argued that both the number of copies belonging to Chantresses and the contents of these works point to feminine interest and involvement in some of the compositional changes encountered. Looking at the endings of the so-called Saïte recension, Yoyotte presented his six stages of development in the late Books and Mosher has tried to explain Yoyotte's canonical and deuterocanonical versions in terms of Memphite and Theban traditions. Of the four best known spells added to the Book in the Late Period, Chapter 162 still seems to be the oldest and most important for a variety of reasons that I have proposed elsewhere, but the 163-165 sequence is also significant in that it points to Nubian influence.

LICHTENBERG, Roger et Alain ZIVIE

Les chats du Bubasteion de Saqqara: État de la question et perspectives

Même si les hypogées du Nouvel Empire restent au centre de l'activité de Mission archéologique française du Bubasteion, il est évident que l'autre principal aspect du site de Saqqara où se trouvent ces tombes, reçoit également toute l'attention qu'il mérite. Il s'agit de la présence dans la falaise d'une nécropole de chats dont le développement a suivi la montée du culte

de Bastet et la faveur grandissante qu'ont connue le «culte des animaux» et les pratiques funéraires qui lui ont été associées.

Le Bubasteion et ses catacombes de chats constituent ainsi un site privilégié que l'archéologie permet désormais de mieux connaître. Notre connaissance du chat égyptien, comme animal, mais aussi comme objet de pratique cultuelle et funéraire, y trouve son compte. Ces dernières années de fouilles ont en effet amené la découverte de nouvelles parties des catacombes de chats, parfois restées en l'état depuis l'antiquité, avec de nombreuses momies en bon état, ainsi que des objets votifs ou autres de toute sorte. Ces momies sont étudiées et radiographiées, ce qui permet d'obtenir une étude statistique fournie et instructive.

LIMNEOS-PAPACOSTA, Calliope

The Macedonian Influence on the Funerary Architecture and Burial Customs of Hellenistic Alexandria: Comparison between the Macedonian Tombs of Greece and Cemeteries of Alexandria

The important discoveries of the last 20 years in Macedonia, especially the royal tombs of Vergina, have already revealed to us much valuable information concerning the architecture of the Macedonian tombs from Hellenistic times. We can also follow their influence in the formation of the Alexandrian burial architecture in the cemeteries of Chatby, Sidi Gaber, Mustafa Pasha, Anfushi, etc. The burial customs that are displayed by the burial furniture, the use of funerary beds, 'klinai', of funerary stelae and urns (Hadra vases) are similar and relative. Another basic element is the decorative style of the architectural parts of the facades. In both countries, the vaults of the 'naos'-shaped tombs (Anfushi), the paintings (Mustafa Pasha), the Doric features of the doors (Alabaster Tomb, Mustafa Pasha) prove the Macedonian influence in the burial architecture of ancient Alexandria as well as the formation of a new type that comprises the evolution of the Macedonian tomb with elements borrowed from Egypt.

LINSTÄDTER, Jörg

Prehistoric land use systems in the Gilf Kebir

The Gilf Kebir Plateau is situated in the far south-west of Egypt, to the south of the Great Sand Sea and about 650 km to the west of the Nile valley. Although nowadays part of one of the earth's most arid deserts, the valleys of the Gilf Kebir offered favourable conditions for prehistoric settlement during the so-called "Neolithic wet phase".

During the early 1980s, the B. O. S. project of the University of Cologne surveyed the Wadi el-Akhdar and the Wadi el-Bakht for traces of settlement

dating from the middle of the 7th to the middle of the 4th millennium BC. Human occupation was favoured by the fact that the wadis were blocked by north-south trending dunes which resulted in the formation of temporary lakes (playas) upvalley. The onset of lacustrine deposition in the Wadi el-Bakht occurred at about 8000 BC. Numerous sites in the vicinity of the playa and the barrier dune were excavated. They were dated to the Middle Neolithic (6500-4400 BC), and the Late Neolithic (4400-3500 BC), a period roughly corresponding to the rise of the Naqada Culture in the Nile valley.

Starting in 1999, field research has been resumed in the Wadi el-Bakht region in order to discern ancient land use and mobility patterns on the basis of the existing data. Since the Middle and the Late Neolithic are clearly distinguished by their material culture, one of the research subjects is to find out whether the various lithic inventories can be related to different modes of production in regard to different strategies of land use.

LOEBEN, Christian E

New Light on the Aten: Early Development and Purpose of Akhenaten's Divine Creation

Until today, Egyptological investigations on the so-called "Amarna Period" have not yielded any sufficiently satisfying explanation for Akhenaten's reasons to create the Aten, his new divinity. In trying to get closer to any sort of answer to this vital question, an abundant analysis of the iconography of the early representations of the god and its change during the early years of Akhenaten's reign seems to be a most necessary task, since written sources have so far obviously not revealed enough information on this topic.

Such a required detailed study has been undertaken by the author and its results will be presented in this paper.

LOKMA, Nadia

The Reconstruction of a Group of Wooden Models from the Middle Kingdom

In 1915 George Reisner excavated the Tomb of Djehutinakht, Nomarch of the Hare Nome, in Deir el-Bersha, where he found the largest known collection of wooden models from the Middle Kingdom. They were found in pieces in a confused state, abandoned by tomb robbers. Since the discovery, the model collection has been kept in storage in the basement of the Museum of Fine Arts in Boston. They were in an unstable state and a very fragile condition, and very much in need of study and preservation. The collection consists of 57 boat models, 42 daily life models and 525 figures. Most of the figures (about 350) were separated from their bases and mixed up, but some of them

were restored long ago in incorrect positions. This paper will discuss the stabilization and reconstruction of these models and show the results of the work.

LOPES, Maria Helena Trindade and CAMELO, Francisco

The Development of Egyptology in Portugal

The development of Egyptology in Portugal has covered several areas in the last five years:

1. A Master's Degree course in Egyptology in order to promote advanced studies;
2. Increase of the number of publications;
3. Conferences and *symposia*, joining Portuguese Egyptologists and Egyptologists from other countries;
4. Co-operation between New University of Lisbon and Calouste Gulbenkian's Foundation;
5. Organization of the Portuguese Egyptology Association.
6. We are awaiting the approval of a project for a Portuguese excavation field in Memphis.

LORING, Edward

Lexical Machine III

At the 1995 IAE Congress in Cambridge, E. Graefe and E. Loring presented the concept of a computer-based root lexicon of ancient Egyptian. Since then considerable progress has been made. The first phase, text and context, presenting a text and its carrier in their physical and historical environments, was discussed at the Berlin Wörterbuch Symposium by E. Loring in 1997. The second phase, input and automatic analysis of texts in the GNOSARCH System was presented at the 1999 Wörterbuch meeting in Berlin, by E. Graefe.

This research and development project in computer linguistics has now entered the phase in which rules for the automatic analysis of texts can be formulated. Such rules must consider Egyptian orthography and hieroglyphic codes. The GNOSARCH n-dimensional matrix offers several possibilities for the development of such an analytical system.

The development of a set of lexical rules for linguistic analysis of ancient Egyptian is an open discussion requiring the consideration of a multi-cultural group of experts. Persons and institutions wishing to participate in this project may contact the developers. An understanding of Boolean logic is useful, but not a prerequisite.

LUCARELLI Rita

Innovation Versus Tradition of the Genre in the Book of the Dead of Gatseshen

The 21st Dynasty's hieratic redaction of the Book of the Dead shows a high degree of innovation in supplying new variants of spells and textual additions to the earlier texts.

The papyrus of Gatseshen (JE 95838) is one of the largest proponents of a group of papyri produced by the Theban workshops for the family of the High Priest of Amun at that time. Within its extraordinary wide range of texts, amounting to 135 spells, this document contains some atypical sections interwoven with the canonical texts of the genre, which truly reflect the funerary beliefs of the period.

Through the analysis of the contents of some of these new sections, the present paper will address the following issues:

- The Book of the Dead as primary expression of a renewed textual tradition in the 21st Dynasty
- Solar versus Osirian beliefs in the funerary religion of the priests of Amun at Thebes
- Book of the Dead studies: the importance of a deeper understanding of the theological principles underlying the process of textual selection in the mortuary papyri.

LUPO, Silvina Alicia

Baker Trays from Tell el-Ghaba, North Sinai

Tell el-Ghaba has been excavated since 1995 by the Argentine Archaeological Mission. A great quantity of Egyptian and imported pottery led excavators to date the site to the Saite Period. Among the Egyptian pottery found at Tell el-Ghaba, fragments of baker trays were very abundant, and most of them came from Building B (Area I). This area is supposed to be an industrial one. Baker trays have a long tradition in all of Egypt, beginning from the end of the Old Kingdom. A corpus was made according to their fabric, shape, shaping technique and the context from which they came. For Egyptian fabrics the Vienna System was adopted and a classification of them was made according to it. Inferences about their function in the site are made. The first results of the study are presented in this paper.

MACHADO, Maria João de Sousa

The Understanding of Early Kingship at the End of the 2nd Millennium AD

Neith, a goddess frequently attested in the late pre-Dynastic and Early Dynastic periods, is among Egypt's oldest deities. Neith lost the importance

that she had in predynastic times, since she does not play an important role in the theology developed after the unification. The scarce existing examples linking Neith and kingship only appear in the first dynasties, as in the tomb of King Zer of the Thinite Dynasty of the South, and this link tends to weaken as we advance in time. However, Neith is clearly one of the dominant female deities in the pre-Dynastic period, and her representation is frequently associated with some enigmatic female figures depicted with larger proportions than male figures. Does this denote a strong link between Neith and these female figures who might be the rulers of the first communities?

Neith's eclipse might be related to the development of kingship that emerged with the unification. The theological system created to support the monarchy elevated other deities, such as the hawk, and the majority of female deities lost their importance compared with male gods. The main purpose of this article is to point out the major factors that led to a possible change in the role of powership from the predynastic times to kingship of Dynastic times, starting with the worship of Neith as one of the most meaningful examples of a possible matriarchal society before the unification and the existence of Egypt.

MACKE, André, Christiane MACKE-RIBET et Jacques CONNAN

La momification: À propos de 341 momies de la Vallée des Reines

Dix ans de travail dans la vallée des Reines sur la rive ouest du Nil à Louxor ont permis aux équipes conjointes du CNRS et du CEDAE de fouiller 92 tombes ouvertes au Nouvel Empire et réutilisées pour certaines d'entre elles jusqu'aux premiers siècles de notre ère.

Parmi le matériel archéologique, 341 momies complètes ou fragmentaires appartenant à trois périodes ont été examinées par nos soins (4 momies du Nouvel Empire, 30 momies de Basse Époque et 307 momies d'Époque Romaine). L'étude comprend une description externe, des radiographies, un examen interne et pour certaines des prélèvements de baumes.

Dans cette communication, nous abordons certains points des techniques de momification dont les conclusions actuelles, répétées dans les livres sont incomplètes ou erronées. La composante statistique étendue sur plusieurs périodes nous permet d'aborder les méthodes d'extraction du cerveau, l'ablation des viscères thoraco-abdominaux, la composition du natron, l'action des insectes sur les momies, la préparation des cavités et de la peau et l'étude chimique des baumes. Pour chacun de ces thèmes, nous confrontons nos conclusions à celles de la littérature.

MAHMOUD, Osama

Zu den Darstellungsmotiven der Sumpffahrt im Delta in den Privatgräbern des Alten Reiches

Unter den am häufigsten ausgewählten Themen der Grabdekoration im Bildprogramm der Gräber des Alten Reiches, aber auch darüber hinaus in den Gräber der späteren Perioden, ist die Darstellung des Grabherrn während seiner Fahrt in den Sumpfgebieten des Deltas. Verschiedene Motive sind gleichzeitig mit diesem Darstellungstyp verbunden.

Die Papyrusdickichtumgebung, die direkt auf die mythische Landschaft von Isis und Horus hinweist; die Szenen der Vogeljagd mit dem Wurfbolz, des Fischfangs mit dem Speer, sowie der Nilpferdjagd, die mit dem ursprünglichen Gedanken an die Bekämpfung des Götterfeindes Seth verbunden sind. Außerdem deutet sie auf die sozialen Verhältnisse des Grabherrn während seiner Spazierfahrt mit dem Boot in einer familiären Sphäre.

Ein wichtiger Aspekt für die Darstellung dieser Szene, die besonders häufig in den Gräbern der zweiten Hälfte des Alten Reiches zu sehen ist, ist die Übertragung des Gedankens von der heilen Wiedergeburt des Grabherrn im Jenseits und zwar durch die Parallelität dieser Darstellung der Sumpflandschaft des Deltas mit der mythischen Landschaft von Chemmis im Delta. Sollte diese Darstellung auch eine Art ikonographische Übersetzung für den seit dem Ende der 5. Dyn. immer häufiger erwähnten Osirismythos sein, der nicht mehr nur für den königlichen Bereich vorgesehen, sondern auch für den Privatmann von Nutzen ist?

Der Vortrag soll die verschiedenen Aspekte dieser Szene aufführen und diskutieren, sowie die Entwicklung dieses Szenentyps im Laufe des Alten Reiches verfolgen.

MAJCHEREK, Grzegorz

Mosaic Floors of Roman *Triclinia* in Alexandria: Evolution of the Techniques and Design

During the last few campaigns, excavation work carried out by an expedition of the Polish Center of Archaeology of Warsaw University at the site of Kom el-Dikka in Alexandria has concentrated on an investigation of Early Roman residential architecture. As a result of this work, conducted in different parts of the site, fragments of well-preserved urban villas of the 1st-2nd cent. AD have been explored. All the investigated buildings were richly decorated: numerous remains of the original interior decoration as well as a set of various floor mosaics have come to light. An impressive group that is distinguished from the rest is the huge floors decorating the *triclinia* of the houses.

In his paper, the author will discuss the most interesting examples of these floors which have not come to light in Alexandria before, floors that

specifically combine a central opus sectile panel with a U-shaped floor executed in the opus tessellatum technique.

MALAGUTI, Annalisa

Shedet in the Old Kingdom

The present communication is part of the doctorate thesis that I am preparing at the University of Bologna. In particular, my research examined documents relative to the oldest history of Shedet. In the first part, the paper analyzes the literary testimonies from pharaonic times through those included in the works of Herodotus, Diodorus S. and Strabo, which deal with the origins of the city center in the beginning of pharaonic times. The paper also examines the archaeological evidence of the initial age of the city center to create a better reconstruction of the most ancient phase of the city based on the analysis of the entire existing documentation. The analysis of the known existing documentation attests to the primary role assumed by the local temple dedicated to Sobek, which seems to have influenced the city's development significantly, and also to have had important repercussions in the remaining territory of the Fayyum.

MANNICHE, Lise

Green Monkeys

In Egyptian art, monkeys are invariably depicted with a fur of a blue and/or green hue. This convention goes back to the beginning of the historical period. In inlaid objects where the choice of colour is more precise than in painting, the option was between turquoise and green felspar. The paper will examine whether this choice was based on a perception of the appearance of the coat on the part of the Egyptian artist or whether it was deliberately adapted to the restricted Egyptian palette for a specific purpose. The relationship between light blue and green colour in Egyptian art will be discussed and compared with the specific associations of dark blue, which is in Egyptian art affiliated with black rather than green. This distinction may help determine the nature of objects or hieroglyphs, which have otherwise been subjected to dubious identification.

MANTELLINI, Elio et Sergio NAPPINI

La fibrose hépatique non cirrhotique dans l'ancienne Égypte des pharaons

La fibrose hépatique non cirrhotique est une maladie du foie due à une infestation intestinale provoquée par le «*Schistosoma mansoni*», un vermisseau semblable à la «*Bilharzia*», contaminant l'homme par voie

épidermique. Le «*Schistosoma mansoni*» est présent depuis toujours en Afrique Occidentale, surtout sur les rivages et dans le delta du Nil. La schistosomiase et ses complications touchaient sûrement un grand nombre d'anciens Égyptiens et avaient des évolutions très différentes du point de vue gravité et durée; l'évolution est lente et aboutit à la mort d'environ un quart des personnes atteintes.

Les symptômes initiaux sont fièvre et diarrhée; au cours des années, elle provoque une hypertension portale présinusoidale; le foie peut augmenter de volume et se modifier quant à la consistance, pouvant assumer un aspect nodulaire avec prééminence du lobe gauche. Au cours du temps, d'autres complications surviennent telles que hématurie, splénomégalie et ascite, presque toujours l'insuffisance hépatique.

La schistosomiase, selon de nombreux auteurs tels que Ruffer, Leca, Hart et Ghalioungui, était, sans doute, présente dans l'Égypte des Pharaons, mais malheureusement aucune certitude n'est possible car, dans le procédé de momification, le foie et les intestins étaient extraits et pour cela non récupérables; il est donc impossible de nos jours d'examiner macro et microscopiquement ces organes.

Peut-être dans un futur proche, découvrons-nous, par hasard, des momies conservant foie et intestins, en dépit des traditions.

MANUEL DE ARANJO, Luis et José NUNES CARREIRA

L'Égyptologie au Portugal: Le passé et le futur

Le réveil de l'Égyptologie au Portugal date de l'époque de l'expansion portugaise vers l'Orient, aux XVI^{ème} et XVII^{ème} siècles. En 1522 António Tenreiro est arrivé au Caire venant de Goa après un voyage très difficile. Il a vu des pyramides et des momies et a publié un rapport en 1560. L'Égyptologie en tant que discipline académique intégrée aux études d'Histoire et Culture Préclassiques, a commencé en 1986 avec la fondation de l'Instituto Oriental de la Universidade de Lisboa (Faculdade de Letras) et, peu après, avec la fondation de l'Instituto Oriental de la Universidade Nova de Lisboa (Faculdade de Ciências Sociais e Humanas). Il y a aussi une collection égyptologique, avec plus de mille pièces au Portugal, conservées par quelques institutions publiques et personnes privées, dont la plus réputée est celle de Calouste Gulbenkian.

MANZANO, Lucas Baqué, Salvador Costa LLERDA, and Jordi Garcia VILALTA

The Orientation Systems of New Kingdom Royal Tombs in the Valley of the Kings: A New Approach

In the last few years, the question of the orientation in New Kingdom royal tombs in the Valley of the Kings has been object of many accurate studies. One of these, initiated in 1993 by the University of Arizona Egyptian

Expedition, refers specifically to the motif alignment of the tombs (Motif Alignment Project). According to this work, summarised in R. Wilkinson, "Symbolic Orientation and Alignment in New Kingdom Royal Tombs", *Valley of the Sun Kings*, University of Arizona Egyptian Expedition, 1995, pp. 74-81, the royal tomb orientation and design conform to three types: a) cardinal orientation (18th Dynasty); b) symbolic S-N or *alpha* type (19th Dynasty on); c) symbolic E-W or *beta* type (19th Dynasty on). With reference to the alignment of 18th Dynasty tombs (Type a), the former study points out the opinion of most scholars, who "have concluded that the alignment of tomb entrances and passages follows no consistent pattern". Thus, the question about some kind of pattern design in 18th Dynasty tombs is not solved, although it is recognised "that some kind of pattern may occur in the alignment of New Kingdom sarcophagus chambers." As to the symbolic orientation in the 19th and 20th Dynasty, the University of Arizona study concludes the following: the symbolic south-to-north alignment (the *alpha* orientation type) "was never fully developed in this way." However, a second symbolic orientation, east-to-west, the *beta* orientation type, developed in the 19th Dynasty, and continuing throughout the 20th "was much more frequently and consistently applied." We have recently initiated an investigation on that subject. The result of our project, based on a new approach, provides us essential information in this regard. Our conclusions from this new method refute most former arguments and would properly explain and verify the alignments and orientation (4 types and not 2) of New Kingdom royal tombs, including those of the 18th Dynasty.

MARAVELIA, Amanda-Alice

Some Aspects of Ancient Egyptian Civilisation, from the study of the principal Love Poems Ostraca from Deir el-Medineh

In the present paper, an attempt is made towards understanding and approaching some aspects of ancient Egyptian social civilisation, as it is presented to us by sixteen love poems, dating from the Ramesside period and coming from Deir el-Medineh [oDeM 1266, oDeM 1078 ($r + v$), oDeM 1079]. The main conclusion resulting from their study is the fact that ancient Egyptians considered love inside family as the perfect integration of eros. This is proven in addition by a multitude of paintings from inside the Theban necropolis tombs in the Valley of the Nobles, which at the same time officially and sensually exalt the couple's love under the familial bonds, and constitute a testimony of admiration for matrimonial life and its erotic pleasures.

MARÉE, Marcel

A New Middle Kingdom Necropolis

One of the greatest frustrations in Egyptology is that so much of our material is unprovenanced. In museums and the literature, labels to that effect are so common as to convey the impression that the situation is irreversible. Nothing, however, is less true. By tracking down recurrences of rare pictorial and epigraphic idiosyncrasies among contemporary monuments, it is possible to recognize shared artistic origins. On closer examination of the resultant groups, internal data may combine to actually fix these origins topographically. It is even possible to link objects to sites that have never been the subject of proper archaeological investigation, and substantial information can be obtained on localities that were always thought poorly documented.

By way of example, this lecture presents one such a group of unprovenanced objects whose artistic connection has passed unnoticed, but which demonstrably derive from the same site. In this case, they must all come from a 12th Dynasty necropolis in Middle Egypt that was heavily plundered at the turn of this century, and neglected by archaeologists. Emerging from total obscurity is a period of local history yet to be covered in the literature, for these objects shed light on what has long remained the whitest spot in the Nile Valley—the 12th Upper Egyptian nome.

MARSH-LETTIS, Glenda Susan, Samuel B. ADELOJU and R. G. THOMAS

Conservation of Ancient Egyptian Textiles

Changing environmental conditions in Egypt are increasing salinity on archaeological sites, with consequent damage to not only tombs and monuments but also small artefacts. Much attention has been given to the removal of destructive salts from stone and pottery, but little attention has been given to the effects of salts on organic artefacts such as textiles, wood and basketry.

Our research into the effects of salts upon textiles and other organics is widening our understanding of the role played by salts in both the preservation and the deterioration of Egyptian artefacts. Our research into methods for the treatment of salt-affected textiles has investigated new methods of treatment, methods which may be used to clean and stabilise textiles without the addition of consolidants. These and other aspects of our research in this area will be presented in this paper.

EL-MASRY, Yahia

Recent Explorations at the Ninth Nome of Upper Egypt

During the excavations carried out in 1990 and 1999 by the SCA at Akhmim province, a late Old Kingdom and First Intermediate Period cemetery and an early Ptolemaic site were discovered. A preliminary analysis of these

cemeteries reveals that the distribution of these tombs was influenced by social and religious factors. Three decorated tombs were recorded during the work, from which five coffins with mummies and a quantity of funerary equipment were excavated. One of the tombs provided a unique example of painted scenes in the regional style, including an unparalleled scene of an offering table holding plants instead of bread. The names and titles of the tomb owners were documented on their coffins, and the manner of their burials provides a wealth of historical data regarding the First Intermediate Period.

The Ptolemaic site comprised a partially rock-cut temple, and a settlement. The most important object excavated from the temple was a fragmentary stela inscribed with a decree of Ptolemy III, which is considered to be the most completed one.

MATHIESON, Ian and Jon DITTMER

Non-destructive, Environmentally Friendly Archaeological Prospection Surveys

Since 1980, the authors have been developing methods of geophysical prospection specifically geared to the desert and deep silt conditions, typical of archaeological sites in Egypt.

Surveys have been carried out on a number of sites, including Tell el-Amarna, Memphis and various locations within the Saqqara Necropolis. These sites have encompassed cultivated areas, occupational debris, aeolian sand sites and bedrock conditions.

Each site exhibits a different set of characteristics which respond to different geophysical methods and must therefore be considered when a survey is planned. Methods of geophysical prospection have included resistivity, magnetometry, ground conductivity and electromagnetic impulse (ground penetrating radar). These have been used to map walls, ditches, kilns, burials and other archaeological features.

The methods of investigation and the presentation of results have been successful in pinpointing and delineating sites for subsequent excavation, and site management. Geophysical surveying should be incorporated into a site development and management programme in order to best plan the use of resources and ensure that the fragile archaeological resource is studied fully before the destructive process of excavation is begun.

MATTHIAE, Gabriella Scandone

Ebla et l'Égypte: état de la question

Les campagnes de fouille de la Mission archéologique italienne de l'Université de Rome "La Sapienza" à Tell Mardikh-Ebla, en Syrie, ont apporté, depuis 1976, une quantité de données sur les relations entre la

grande ville de Syrie du Nord et l'Égypte de l'Ancien et du Moyen Empire. A présent, Ebla est la ville d'Asie qui, après Byblos, présente le plus de rapports avec la cour des Pharaons de la IV^{ème}, de la VI^{ème} et de la XIII^{ème} dynasties. A l'époque de la première grande phase d'Ebla au Bronze Ancien IVA, dans le Palais Royal G ont été trouvés une coupe en diorite avec les noms de Chefren, et un couvercle en albâtre de Pepi I^{er} avec plusieurs coupes en pierre anépigraphes. Dans le Cimetière Royal du Bronze Moyen I-II, dans la tombe probable d'un roi, a pu être récupérée une massue en ivoire, or et argent de production pharaonique avec le nom de Hotep-ib-Ra, l'un des premiers souverains de la XIII^{ème} dynastie. A part d'autres objets mineurs, comme des scarabées, dans le Palais Septentrional du Bronze Moyen II ont été découvertes une série de fragments d'ivoires avec des figures divines égyptiennes—Horus, Sobek, Montou, Hathor—et de splendides têtes osiriennes. Tous ces ivoires, certes produits dans un atelier royal d'Ebla sur la base de modèles égyptiens, documentent la pénétration du patrimoine iconographique de l'Égypte du Moyen Empire à la cour de l'une des plus puissantes villes du Sud d'Alep, qui était probablement la région de Qédém du *Conte de Sinouhé*.

MATTHIAE, Paolo

Images pharaoniques et idéologie royale paléosyrienne

Alors qu'à l'époque paléosyrienne archaïque (Bronze Moyen I: 2000-1800), dans les sceaux cylindres de Haute-Syrie, les thèmes d'origine égyptienne sont presque absents, probablement dès le début de l'époque paléosyrienne classique (Bronze Moyen II 1800-1600), le patrimoine figuratif du Nil devient la base de remarquables re-élaborations dans la grande glyptique de Syrie de style classique. Des figures de dieux du monde religieux égyptien, des schémas compositifs de la culture figurative égyptienne, des images d'êtres mythiques créés en Égypte—depuis Horus et Osiris aux rois doubles aux côtés d'arbres sacrés jusqu'aux sphinx re-élaborés—forment un noyau remarquable d'inspiration égyptienne dans le repertoire iconographique paléosyrien riche et varié, qui, par contre, est d'une forte originalité iconographique et d'un style bien caractérisé et enraciné dans les traditions locales. Cette imagerie peut se rapporter pour la plupart, à l'idéologie royale du monde paléosyrien, qui, certes sur l'ordre des souverains des grandes villes nord-syriennes—Ebla, Alep, Qatna, Karkémish—a été soumise à une véritable *interpretatio aegyptiaca*. Des thèmes typiques de la royauté pharaonique, comme celui de la figure doublée du souverain dépendant de l'idéologie de l'union des rois de la Haute et de la Basse Égypte, adoptés en Syrie au début du II^{ème} millénaire ont été transmis aux grands empires d'Asie du I^{er} millénaire, en particulier au monde assyrien.

MEKKAWY, F.

Discoveries at Tell El-Farain (Buto)

Buto is mentioned in many of the Ancient Egyptian texts. It was the seat of the first trial of unification in Egypt. The ancient town ceased to exist in the Late Roman period. Between 1982-1996 the ground yielded 606 different finds during our work, many of them are inscribed with the name of Buto. These objects differ in their sizes from amulets to colossal statues. They belonged to the ancient heritage between prehistory and the late Roman times.

The Tell still hides thousands of pieces of information about the ancient Egyptian civilization. It still needs more and more excavations in the coming centuries.

Buto also is in need of preservation and care.

EL-MENSHAWY, Sherine

The Protocol of the Ancient Egyptian Royal Palace from the Old Kingdom to the end of the New Kingdom

The term protocol is defined as, "a noun, associated with royal visits, rules of conduct, code of behaviour, conventions, formalities, customs, propriety, decorum, manners and good form." Although texts allude to a variety of arrangements and kinds of protocol that are associated with public audiences with the king, there has been no attempt to gather the full variety of evidence for such arrangements in one context. My aim is to plot such codes of behaviour, based upon pictorial, textual and archaeological evidence. The attempt will then be made to outline sequences of events from the time the recipient is waiting his turn to be ushered into the king's audience until he is guided out of the audience hall. This investigation is intended as the foundation of a study which will examine further questions about additional protocols generally kept hidden in privacy behind the huge gates of the palace. The initial analysis of these questions implies that no one ever approached the king without practising the appropriate ritual gestures. The role of special people who managed and organised the ceremonies in the palace will be discussed and in particular the function of those who were responsible for ushering people in before the king.

MENU, Bernadette

Égyptologie et histoire du droit

Spécialisation à part entière dans le cursus universitaire français, au même titre que le droit public ou le droit privé, l'histoire du droit s'est jusqu'à présent fort peu intéressée à l'Égypte ancienne. Pourtant, les enjeux sont considérables, en raison de l'ancienneté et de la cohérence d'une civilisation

qui a engendré son propre système juridique, dont plusieurs éléments nous ont été transmis, par le canal des droits grec et romain, et celui de la Bible. Parallèlement, si quelques juristes égyptologues se sont penchés sur le droit de l'Égypte ancienne, aucun d'entre eux n'appartenait à la spécialité intitulée «histoire du droit».

Dans un exposé en deux parties, nous mettrons en évidence la richesse des apports respectifs d'une discipline à l'autre.

EL-MERGHANI, Samia

Studies of Botanical Remains and Animal Remains participates in Re-Writing the History of the Delta through Time

The last decades of the twentieth century witnessed many archaeological discoveries in the Delta of Egypt, especially dating to the Predynastic and archaic periods and the Hyksos period. The studies of unusual archaeological materials like human remains, animal remains, and botanical offerings as well as the study of fossilized feces of animals, which may be found in the deposits of an excavation site, are considered important for modern studies because they depend on lab analysis and modern techniques, and their results provide us with more information in scientific and archaeological fields. In this paper we study some remains of botanical and animal offerings by usual and modern techniques (SEM) & DNA studies. The results explain the changes that happened to the physical and chemical properties of these materials, and give us good information about ancient nutrition. We also examine preliminary studies about animal remains to give us information about the kinds of domestic animals buried in excavation sites, and the study of fossilized feces of animals provides a clear picture of wild animals living in ancient times. These preliminary studies are considered a starting point to making a survey and zoological map to illustrate the systematic distribution of domestic and wild animals living in ancient Egypt.

MEZA, Alicia I.

Ancient Egypt in Malta: an Ancestor Bust from the Delta and other Objects

Since the beginning of the century Egyptian and Egyptianizing objects have been uncovered in Malta. Most of these objects were found in tombs, some within the remains of ancient temples and others recovered in unknown circumstances. Perhaps the most enigmatic of them were an ancestor bust and three funerary stelae. The science of Egyptology was young at this time, and most of the technological advances, that we take for granted today, were not available then. For instance, we can now trace objects to their site of manufacture and know their age. We can also investigate their possible trade routes and the implications of their presence in Malta. Was there a direct

exchange with Ancient Egypt? Perhaps an Egyptian trading community was living in Malta? Or were other Mediterranean groups responsible for these objects being channelled into the Maltese economy?

Today we are at the threshold of another century, another millennium, and the possibilities of answering these questions are many. The task of studying and preserving the great quantity of objects is also awesome. A future networking of information and co-operation among museums around the Mediterranean would help in this threefold aim: recuperation, preservation and research of the origins and history of small art objects.

MOCHARAFA, Aya A.

Les épouses divines d'Amon du Nouvel Empire jusqu'à la fin de la XXII^{ème} dynastie

Les épouses divines d'Amon sont des prêtresses liées à une fonction cosmogonique. Leur union au demiurge garantit l'harmonie de la création.

Au début et tout le long du Nouvel Empire le titre "épouse divine" était porté par des grandes épouses royales, mais dès la Troisième Période Intermédiaire, il fut porté par des filles du grand prêtre d'Amon à Thèbes qui se virent attribuer cette distinction suprême du clergé féminin du dieu. Elles étaient des vierges vouées au célibat terrestre et elles se recrutaient par "adoption", généralement de tante à nièce.

L'épouse divine d'Amon était le personnage principal en rapport avec le dieu suprême: c'était elle qui devait invoquer la protection du dieu pour le roi et le satisfaire par ses prières afin qu'il protège le pays. Elle assure son contentement et elle exprime sa puissance redoutable.

MOERS, Gerald

The Function of Nature in Egyptian Cultural Identity

Throughout history, in Egypt and elsewhere, cultures found many different ways of generating, maintaining, and re-enacting their specific collective identities in order to produce internal cultural coherence and to sharpen cultural boundaries externally. For this purpose, different 'fields of imagination' are constructed for maintaining cultural identity. In these fields—as for example, language, religion, or 'nature'—the specific self-images of cultures find their appropriate expressions. Thus, already in Egypt as also in Ancient Greece, 'nature' in the broadest sense, ie climate, topography, and natural environment, is used to generate and at the same time explain cultural differences between Egypt and her neighbours. With examples from Egyptian literary and religious texts, the paper will present and discuss these views on identity and difference produced in terms of 'nature'.

MORENO, Luis Garcia

Germans in Early Byzantine Egypt

In 1907 a double folio of parchment was found near Antinoë, containing a VIth century Latin version of Luke 23-24. Maybe the origin of this portion of Ulfila's Bible was Ostrogothic Italy.

This paper intends to find papyri testimonies of the presence of Gothic and other German Arian people in Early Byzantine Egypt. A very important issue will be to know the dates, causes, places, cult and military organization and survival of these German settlements. Of course, a special treatment will be given to the *Skythai Ioustinianoï* in Antaiopolis and in Apollonopolis Magna. The person-names can offer a very instructive index in order to know the survival of the ethnic identity of these people. So, a commandant of the Apollonopolis soldiers was called Ricimer, a well known Gothic name. But other members of this very unit bear Christian and Roman names. The use of typical Egyptian names (Anoubion, Psensoerions) can be a proof of unions between German soldiers and Egyptian women, or of their absorption into the native culture and of loss of their ethnic identity.

MOUSSA, Fatma Salah el-Dine

Quelques aspects de la vie quotidienne représentés à Maria byzantine

Un grand bâtiment a été découvert à Maria byzantine, située sur la côte sud du lac maréotique près d'Alexandrie, en 1978. Ce bâtiment semble une énigme parce qu'il comporte seize pièces et il paraît avoir subi différents stages de construction à l'ère byzantine.

Quelques-unes de ces pièces comportent un grand réservoir à eau et quelques *klinés* de différentes dimensions, ainsi que deux énormes moulins à bras de granit rose et un grand bâtiment construit en briques crues.

De mon point de vue, ce bâtiment doit être étudié parce qu'il n'a pas été publié auparavant. Ce bâtiment, par le style de sa construction et son contenu explique quelques aspects de la vie quotidienne dans cette ville touristique byzantine.

MUELLER, Maya

A Comprehensive Iconographical Data Bank for Egyptian Objects: Method and Results

What must be the structure of a general iconographical data bank that will allow the user to get a new understanding of the material stored in it? That is what the author will show through the votive offerings of the first millennium BC. The most important step is the parametrical analysis of the objects under study. All pictorial elements occurring on an object, whether two- or three-

dimensional, must be isolated. Complex representations must be disassembled into their basic elements. Thus it is possible to retrieve any pictorial element in any context in which it may occur. This process has resulted in a thesaurus of primary pictorial elements that is hierarchically organised. The non-pictorial information contained in the objects is defined in a catalogue of descriptors.

The evaluation of the data allows a better delimitation of the different categories of votive objects. If a specific category of objects has a significant range of properties in common with another one, this is proof of the intrinsic relationship of both, e.g. mummy straps and menyets. The appearance of new combinations of motives, e.g. Osiris, the naked Isis, and the obelisk, sheds light on thrusts of development. The iconography of votive offerings reflects the interactive relations of people with their gods developing in the first millennium.

MUHS, Brian

Persian Period Houses from Tell el-Muqdam in Historical Context

Excavations at Tell el-Muqdam by the University of California, Berkeley have revealed the foundations of several houses dating to the late fifth century BC. These foundations are very similar to those of Ptolemaic and Roman period 'tower houses' known archaeologically from several Fayyum sites (Bacchias, Karanis, Soknopaios Nesos, Tebtynis and Djeme) depicted by several house models and the Palestrina mosaic, and described by Diodorus, I, 45, 5. Both the Tell el-Muqdam foundations and the Ptolemaic and Roman period 'tower houses' differ considerably from the earlier, more horizontal houses known from Kahun, Amarna, and Deir el-Medina, but a few early antecedents for the 'tower houses' suggest that they may be an indigenous development rather than the result of late foreign influence.

MÜLLER, Marcus

Die Rekonstruktion zerstörter Schlachtenreliefs

Der vorliegende Beitrag beschäftigt sich mit den monumentalen, königlichen Kriegsbildern der Ramessidenzeit, den sogenannten Schlachtenreliefs. Von diesen monumentalen Darstellungen sind mehrere Dutzend Bilderserien, die ich als Bildfolgen bezeichne, auf uns gekommen, freilich in sehr unterschiedlichem Erhaltungszustand.

Manche Bildfolgen sind vollständig erhalten, beispielsweise im Großen Tempel von Abu Simbel oder manche Bilder in Medinet Habu, während andere Bilder ganz zerstört sind, große Teile fehlen oder die Oberfläche stark

verwittert ist. Möchte man nun herausfinden, wie ganz oder teilweise zerstörte Bilder aussahen, ist man auf den Vergleich mit den vollständig erhaltenen angewiesen.

Als Methode dient eine Strukturanalyse auf vier Ebenen, welche von den dargestellten Themen ausgeht. Oberste Ebene ist die "Bildfolge", die aus einer Aneinanderreihung mehrerer "Bilder" mit dem Ziel der geschlossenen Darstellung eines oder mehrerer Feldzüge besteht. Die Strukturanalyse ermöglichte die Ermittlung von 19 Bildtypen. Das Bild seinerseits setzt sich aus mehreren "Szenen" zusammen, die wiederum aus "Elementen" bestehen.

Mit Hilfe der genannten Methode können Muster der Bildfolgen ermittelt werden, die wiederum Anhaltspunkte dafür ergeben, zu welchen Bildtypen die zerstörten Bilder gehörten. Meistens kann der Kreis der möglichen Bildtypen auf ganz wenige eingegrenzt werden, bisweilen sogar mit großer Wahrscheinlichkeit auf einen einzigen Bildtyp. Außerdem erlaubt die Strukturanalyse die Rekonstruktion von Bildtypen, wenn nur eine Szene, eines oder mehrere Elemente erhalten sind. Sobald dann der Bildtyp bestimmt ist, können die nicht erhaltenen Szenen ergänzt werden, sofern es sich um regelmäßig zu diesem Bildtyp gehörige Szenen handelt.

Die Methode soll an einigen Beispielen vorgeführt werden.

MÜLLER, Vera

Restoration and Cultic Activities during the Middle Kingdom at the Royal Tombs in Umm el-Qaab/Abydos

As is well-known, the Royal Tomb of Djer in Abydos was considered to be the grave of Osiris from the Middle Kingdom onwards. Apart from the famous Osiris-bed found in Djer's tomb dating to the 13th Dynasty, activities connected with the Osiris-cult were obviously restricted to the area close to the arable land, whereas the necropolis seems to have been kept inaccessible during this period. Only starting in the New Kingdom are large quantities of offering vessels attested. During the last two years, the German Archaeological Institute revealed a large offering place in front of Dwen's tomb which consists in great part of tomb equipment from Djer and a lot of bowls from the early Middle Kingdom. It seems quite conceivable that this arrangement was laid out in the course of restorations taking place at the royal tombs.

MÜLLER-WOLLERMANN, Renate

Folter—ein Mittel der Wahrheitsfindung

Folter stellt im pharaonischen Ägypten eine wesentliche Maßnahme zur Ermittlung der Wahrheit im strafrechtlichen Kontext dar. Diese Funktion spiegelt sich in dem ägyptischen Wort für "foltern", *smtr*. Folter wird zumal dann angewandt, wenn andere kriminalistische Methoden zur Ermittlung der

Täter wie z. B. Spurensicherung versagen. Ordale, die im Prinzip dem gleichen Zweck dienen, sind indessen, entgegen neuerer ägyptologischer Auffassung, nicht nachweisbar. Darüber hinaus dienen unter Folter zustande gekommene Geständnisse der moralischen Entlastung von Richtern und Vollzugsbeamten. Folter stellt keinen spontanen Ausdruck von Unbeherrschtheit oder Grausamkeit dar, sondern wurde bewußt und gezielt eingesetzt. Dies zeigt sich u. a. darin, daß Schlagen als Folter anders bezeichnet wird denn Schlagen als Sanktion und auch die jeweils verwendeten Stöcke unterschiedlicher Art sind. Die heutige generelle Verurteilung von Folter muß also in bezug auf die damaligen Verhältnisse relativiert werden.

MUNRO, Irmtraut

Report on the *Book of the Dead* Project at the Universities of Bonn and Cologne

For five years, a *Book of the Dead* project has been installed at the institutes of Egyptology in Bonn and Cologne, sponsored by the German Research Foundation (DFG).

The aim is

1. Publishing selected important BD sources in the publication serial HAT
2. Collecting all information and photos of BD manuscripts in a computerized archive
3. Establishing a BD-text database
4. Publishing of BD-relevant studies in the publication serial SAT
5. Collecting further references for a second edition of a bibliography concerning the *Book of the Dead*.

MURNANE, William J.

"A Tale of Two Kings": Historical Revisionism and Epigraphy in Karnak Temple's Great Hypostyle Hall

The Great Hypostyle Hall in the Temple of Amun-Re at Karnak is rightly associated with its original builder, Sety I, and his son, Ramesses II, who substantially completed the hall's decoration. Even so, the monument as it now stands is the work of many others in later antiquity, who kept it in good condition and sporadically inscribed their names onto its walls and columns. This paper will focus on one such repair that was done in the second century BCE. At that time, following the collapse of the building's roof into its western entry-way, the side walls of this passage were restored by the reigning Greco-Macedonian "pharaoh" Ptolemy VI. Strikingly, however, this king took very little credit for the wholesale recarving done at his initiative. His own figure appears only at the east end of the passage, where he is shown entering the temple, while most of the other scenes there were assigned to Ramesses II.

For Ptolemy VI to glorify such a historic figure, who played a significant role in the building to which this passage leads, is logical enough. Less understandable is the asymmetrical representation of two other kings—Ramesses III and a pharaoh of the Twenty-fifth Dynasty—at the east end of that passage. Are these Ptolemaic "renewals" of figures that had been inserted into the earlier decoration of the passage? Or were they added only during its Ptolemaic restoration? This paper will discuss the implications of the answer that might be given to these questions, as well as the methods employed to come to a solution.

MYSLIWIEC, Karol

Recent Discoveries of the Polish-Egyptian Mission at Saqqara

The archaeological mission of the Polish Center for Mediterranean Archaeology, Warsaw University, and the Supreme Council of Antiquities, excavating west of the pyramid of Netjerikhet at Saqqara since 1987, has discovered the tomb of vizier Meref-nebef (fair name Fefi), dating from the early VIth dynasty. A necropolis of late Old Kingdom noblemen has also been found between this mastaba and the step pyramid, as well as many burials dating from Ptolemaic and Roman times, lying in the upper stratum of the excavated area. This communication will be a general introduction to these discoveries.

NAKHLA, Shawki, Gamal MAHGOUB and Hugo HUBACEK

Mechanism of Flake Formation and Limestone Degradation Case-study: the Sphinx and the Surrounding Rock

It has traditionally been accepted that the degradation of limestone takes place through different physico-chemical and biological operations: salt efflorescence, swelling and shrinkage of clay minerals and transformation of carbonates into the more soluble bicarbonates and sulfates. However, the fact that after heavy rain lasting more than 12 hours in the area of the Sphinx, efflorescence of soluble salts took place on the surface of the casing stones of the left side of Sphinx without any sign of degradation and that in other sites, salt crystallisation took place behind the surface layer and behind the flakes, suggests the possibility that other phenomena occur leading to flake formation. Analyses of the flakes and underlying rocks by XRD and SEM revealed a phenomenon of silicate enrichment in the flakes with the formation of high molecular weight amorphous silicate. These analyses suggested that this amorphous silicate tends to separate from the surface allowing the efflorescence of salts, behind which the complete separation of the flake and the erosion of the surface occurs due to the increase in size. This is a phenomenon which has been observed clearly in the Sphinx and the surrounding rock.

NAKHLA, Shawki, Hugo HUBACEK, A. EL-HANAFY, M. ABD EL-KADER, and A. ABOU BAKR

Ten years Experience of Silicate Technology in the Consolidation of Egyptian Stone Monuments

The restoration and preservation of stone monuments is the main preoccupation of Egyptian restorers. Different materials have been in use for many years: epoxy, acrylic polymers, silicates, lime water and lime and cement mortars but without success. Since 1990, a new technology has been developed in collaboration with the Silicate Institute in Vienna based on creating a silicate bonding with the original material; this has given successful results for 10 years.

The silicate mortar has physical properties compatible with those of natural stones.

Moreover, its alkaline nature, flexibility, workability and relatively long curing time makes it highly valuable for the consolidation and stabilization of highly deteriorated surfaces, the modelling of lost parts and assembling of broken pieces.

The results of applications on the Giza plateau, in the Graeco-Roman Museum in Alexandria and in Marina El Alamein in the north coast are presented.

NASR, Mohamed

The Reconstruction of the Red Chapel of Hatshepsut

The Red chapel of Hatshepsut was constructed about 1464 B.C in the heart of Karnak temple. Before finishing the chapel, Hatshepsut died. Her successor Tutmosis III dismantled the chapel and used its outside doorjambs in his construction. Amenhotep III used its quartzite blocks as filling material in the foundation of the third pylon. During his work on the third pylon (1898-1995), Henri Chevrier found these blocks which were then stored in the open air area. Some other blocks were found near the ninth pylon and in the eastern part of the Ptah temple.

In order to protect these blocks from rain and sun, the Franco-Egyptian Center at Karnak studied the possibility of reconstructing the chapel. After careful study of all the blocks and two blocks in the Luxor Museum, we found that it would be possible to reconstruct the chapel, which consists of a vestibule and a sanctuary which measures 17.30 m in length and 6.46 m in width. The work started on March 1997 with the choosing of a new site in the open air Museum, in which three other chapels were reconstructed. After preparing the foundation, 331 original blocks were reconstructed along with 16 new granite blocks and 200 diorite and quartzite blocks from the Aswan quarry.

NICHOLSON, Paul T.

The North Ibis Catacomb at Saqqara: Past Work, Future Preservation

The North Ibis Catacomb at Saqqara was re-discovered in 1970-71 by the late Professor Emery. His death during that season of work meant that the further exploration of the Catacomb was curtailed, and as a result the site remained incompletely recorded. Consequently there has so far been no published plan of the monument, and it has remained much less well known than the nearby South Ibis or Falcon Catacombs. Through the generosity of the S.C.A., work at the site was resumed by the Egypt Exploration Society in the 1990s, and is now being prepared for publication.

This new work has sought to examine the architectural features of the Catacomb and the mummified remains that it contains, with a view to completing and expanding Emery's work for publication. The picture that has emerged is of an impressive subterranean complex, something that is difficult to appreciate on a first inspection of the site because of the ancient collapse of parts of the catacomb, and the sometimes detrimental attentions of early travellers and tourists. This paper discusses the latest work at the site and in doing so is able to throw some light on Lepsius' visit to the Catacomb in the nineteenth century. It also assesses the present state of the monument and how best it might be preserved for the future.

NICOLAKAKI-KENTROU, Margarita

Malkata, Site K: The Aegean-related Motifs in the Painted Decoration of a Demolished Building of Amenhotep III

In 1973 the American-British excavations at Malkata brought to light hundreds of fragments of painted mud-plaster deposited in a secondary heap (Site K) at the fringes of the palatial area. They are believed to be part of the embellishment of Amenhotep III's First Jubilee structure that was demolished soon after its erection for the expansion of the Birket Habu. Their study, so far solely based on the colour facsimiles and photographs of the original material, has revealed that the general character of most identifiable designs is purely Egyptian in terms of painting technique, style and subject matter.

However, a considerable number of elements appears to have no precedent in the indigenous artistic tradition, while they can be paralleled to known motifs of Minoan and Mycenaean origin, such as the marbling imitation, the rocky landscape and the rosette-filled terrain. The main points of discussion following the iconographical description and analysis of the Aegean-related representations on the Site K mural fragments will be devoted to:

- a) the nature of artistic borrowing, the probable media of their transference to Egypt and the identity of the engaged artists,
- b) their analogies with particular depictions on the Tell el-Dab'a frescoes, but also with the comparable decoration from Levantine palatial sites, and

- c) their implications on the level of intimacy defining the Egypto-Aegean relations in the first half of the 14th century BC.

NIWINSKI, Andrzej

The 21st Dynasty on the Eve of the 21st Century

The aim of this paper is to summarize the results obtained so far in the research of the period of the "Renaissance Era" and the 21st Dynasty: its history, religion, archaeological remains, as well as the actual situation of the documentation and publication of these. Special stress will be put on the problem of the High Priest and King (toward the end of his life only) Menkheperre. The sources bearing his name will be discussed, as well as the problems concerning his still-unknown tomb and its possible location. In this context, the results of some recent excavations in the area of Deir el-Bahari undertaken by the Polish-Egyptian mission will be presented.

NOH, Heba Moustafa

Distinction (= Arabic *Tamyiz*) and its manifestation in Ancient Egyptian

Distinction (= *Tamyiz* in Arabic) is a grammatical term, meaning an indefinite, inert and superfluous noun explaining or identifying an ambiguous word preceding it.

This grammatical term, in Ancient Egyptian as in Arabic, has two types according to the noun which it distinguishes or identifies. The first type is the so-called "distinction of the isolated" which is concerned with numbers, quantities, measures and extent. Such a type is grammatically considered as a non-transposed-distinction. The second type is the so-called "distinction of the sentence"; it exists mainly in verbal sentences and is used to explain something obscure concerning the subject or the object of that sentence, so that this kind of distinction is a transposed distinction. In this latter case, the predicative/explanatory (m) appears sometimes and disappears in others.

Distinction (= *Tamyiz*) is syntactically prohibited from variation (=diptote). Concerning the grammatical relation between distinction and its distinguished noun, there are two declension cases.

If there is a preposition (m), it is a case of reduction, but if the preposition (m) does not exist, it is an annexation case.

EL-NOWIEEMY, Magda

Isis and Osiris in Roman Poetry

My purpose in this study is to define, through careful reading and analysis, the Augustan poets' vision of the Egyptian gods Isis and Osiris. This paper

examines two distinct points:

1. How the ladies of elegy incline to the cult of Isis and the poets' reflections on this cult.

2. Tibullus' hymn to Osiris which reflects the poet's awareness of the god's benefactions.

I argue against the assumption that the Egyptian gods were refused in the Roman society of the Augustan Age.

NUR EL DIN, M. A.

How Ancient Egypt Survived in Modern Egypt

Modern Egypt inherited so much from Ancient Egypt.

This is quite clear in the names of the country (Egypt, Misr), in the lunar months that the Egyptians are still using, especially in agriculture. Many names of towns, cities, villages and archaeological sites are derived from ancient Egyptian words.

Classical Arabic and slang have many words of Egyptian origin.

In addition to the above mentioned, there is a great link in the field of habits and customs

OREKHOV, Roman A.

Hathor die Irdische und Hathor die Himmlische

Plutarch, der Verfasser des berühmten Werkes „Über Isis und Osiris“, hinterließ der modernen Ägyptologie ein verwickeltes Problem. Es geht um die Stellen, die den Namen der Göttin Aphrodite-Hathor betreffen. Plutarch deutet den Namen der Hathor im Kapitel 56 als „das irdische Haus des Horus“ und faßt ihn zugleich als einen Namen der Isis auf. Indessen war seine Position am Anfang der Erzählung anders: Mit Aphrodite meinte er nicht Isis, sondern Nephthys. Vom modernen wissenschaftlichen Standpunkt aus ruft eine solche doppelte Auslegung ein gewisses Erstaunen hervor und wir möchten mehr Klarheit über die Deutung der Namen und deren Zuteilung an bestimmte Göttinnen erlangen.

Der Autor wird auf den Widerspruch bei Plutarch eingehen und einige neue Überlegungen zur Schreibung des Namens der Hathor und zu ihrer Beziehung zu Nephthys vorbringen.

ORSENIGO, Christian

Khay, vizier of Ramses II: an unknown statue in a private collection and new perspectives on his role

A fragmentary alabaster block statue bearing the name and some titles of Khay, vizier of Ramses II, as well as the name of the king on the right

shoulder, has been found in a northern Italian private collection. The official is represented with a naos containing a figure of the god Amon. The likeness to the statue CGC 42166 of the same individual, which came from the Karnak *cachette*, is impressive and leads to the hypothesis of a similar provenance.

All the known monuments of Khay and his family have been assembled in a new dossier including ostraka with important texts, like the hymn to Ramses II (CGC25204) and the correspondence from Deir el-Medina, the jubilee inscriptions from Gebel el-Silsila, other statues, inscribed blocks and recently identified shabtis.

This research extends to the problem of the supposed deification of Khay and the location of his tomb in Western Thebes. The detailed study of this documentation will allow a better knowledge of the role of Khay during years 30 to 46 of Ramses II.

ORTEGA, Luis Manuel González

The Egyptian Museum of Barcelona Meydum Project

Since 1997, the Egyptian Museum of Barcelona has carried out archaeological work at the site of Meydum. The project is divided into three main objectives:

1. Topographical survey to make a complete orthographical and historical map of the site.
2. Archaeological survey and excavation of the recorded sites. Two hundred metres to the east of Mastaba 16 has been discovered an Old Kingdom cemetery with two funerary chapels consisting of a common offering chapel and several shaft tombs, some of them crowned with a mud brick structure. The absence of funerary equipment and the contracted position of the skeletons are some of the characteristics of this site.
3. Restoration of Mastaba 16 (Nefermaat and Itet). The most important effort of the archaeological mission is addressed to the preservation and restoration of this important monument, and the possibility of opening it to visitors. A lot of tests have been made in order to relocate and consolidate the mud bricks and plasters previously unearthed. From the indications of the structural remains preserved in situ and in the Egyptian Museum in Cairo, a complete restoration project in the area of Nefermaat's chapel has been prepared.

PARIZEK, R.R., S.S. ALEXANDER, D.P. GOLD and E. WALTERS

Development of a Strategy for Groundwater Control to Preserve the Temple-Town, Hierakonpolis

This study integrates data from 55 seismic surveys, water level and specific conductivity measurements in 67 boreholes to the watertable, soil temperature at 90cm depth from 115 stations, and overburden stratigraphy to

characterize the shallow groundwater regime at the Hierakonpolis Temple-Town site.

The water table ranges from small surface pools in earlier excavations to 3.2m, averaging 1.8m. below the surface, with a relief of 2.5m. Monthly readings since January 1999 reveal a typical fluctuation of less than 30cm, with an extreme of 1.24m. Specific conductivity measurements range from 400 (fresh water) to 45000 mohs (saline pools) and reveal a distinct spatial pattern. Soil temperatures differ by 3.8 to 6.2°C within the site, and show a seasonal increase of 10°C since March 1999. High quality seismic data have been used to map the variability in groundwater depth and soil properties between boreholes and in adjacent areas, to locate anomalies likely to be associated with buried man-made structures or objects, to discover a major reflector interpreted as an ancient Nile channel at 100 m depth, and to trace another reflector of unknown origin and significance at 30 m depth.

Results to date indicate a heterogeneous permeability distribution beneath the site. Knowledge of the groundwater regime, especially flow rates, will permit tailoring of methods to dewater and preserve important sections of Hierakonpolis. Deepening the north-east trending groundwater trough may be an effective means of preserving the adjacent Temple and Palace. Methods developed at this site will be helpful to other sites threatened by shallow groundwater.

PÄTZNICK, Jean-Pierre

Les *mjtr* et les *rnw/rnwtj*: Deux piliers de l'administration locale de la IIe et IIIe dynastie

Les fouilles minutieuses de l'Institut allemand d'archéologie sur le site de la vieille métropole du sud de l'Égypte, la ville d'Éléphantine, ont permis entre autres «highlights» de dégager la partie la plus ancienne de l'île, ce noyau urbain à partir duquel se développa la ville par elle-même. L'étude approfondie du matériel sigillaire et sigillé (plus de 1 500 objets!) recueillis, en partie stratifiés, dans cet espace particulier, c'est-à-dire dans la forteresse (IIe dyn.) dans les bâtiments annexes au temple de Satet, dans un grand centre agricole de distribution situé au nord du temple (sorte de coopérative agricole de la IIIe dyn.), de même que dans le grand centre administratif palatial (IIIe dyn.), a permis entre autres, d'établir l'apparition des deux titres *mjtr* et *rnw/rnwtj* dans le temps, à savoir au plutôt à partir du milieu de la IIe dyn. et d'en déterminer les fonctions respectives à partir de l'étude minutieuse des empreintes matérielles laissées au dos de leurs sigillés.

C'est ainsi que les porteurs et porteuses (!) du titre *mjtr* semblent s'être occupés en tant que *colons* de la gestion des terres de la forteresse, du temple de Satet et du palais du gouverneur, tandis que le groupe des *rnw/rnwtj* ne se trouve pas être formé avec un nom des plus communs de l'époque thinite tardive comme on le pensait jusqu'à présent, mais se révèle

être la désignation d'un groupe de *fonctionnaires* agissant en tant qu'organe de contrôle de l'administration locale urbaine.

PEREYRA, María Violeta

The Amenirdis Stele of the Casa Padilla Museum

The purpose of this paper is to make known the stela of the XXVth dynasty, belonging to the God's Wife Amenirdis (CP 04-046), now in the collection of the Casa Padilla Museum in Tucumán, Argentina.

The piece is labelled as "Stele of Amenestais" and the file contains a few numbers of data: it was bought in Luxor in 1926, and granted to the Museum in 1979 without expertise.

The monument came from Karnak, according to the donor's information, and it preserves the name and the religious titles of Amenirdis.

PEREZ-DIE, Maria Carmen

Fouilles à Ehnasya el-Medina (Hérakléopolis Magna): Resultats récents.

La mission archéologique espagnole a poursuivi ses fouilles sur le site d'Ehnasya el-Medina (Hérakléopolis Magna). On a continué les travaux dans les nécropoles de la Troisième Période intermédiaire/début saïte, et de la Première Période intermédiaire où de nouvelles tombes ont été trouvées.

D'autre part, l'étude stratigraphique opérée sur un secteur du site nous a permis d'établir l'évolution historique et chronologique de toute la zone fouillée par la mission archéologique espagnole depuis très longtemps.

La restauration des tombes en pierre de la nécropole de la Troisième Période intermédiaire a été également accomplie, en accord avec le projet présenté et approuvé par le Service des antiquités de l'Égypte. Tous ces travaux et ses résultats seront présentés durant le Congrès.

PETTORINO, Massimo

The Voice of Memnon

The most famous talking statue of the past is the 'Colossus of Memnon', the sandstone colossus still rising over 65 feet on the west bank of Luxor, the ancient Thebes. For about two centuries, at dawn, when the sun's rays touched the statue, a plaintive sound came out of the stone. The 108 epigraphs carved on the legs of the colossus, together with the words of Strabo, Tacitus and Pausanias, are the reliable witnesses of this phenomenon. Until now, among the various hypotheses, the most common ascribes the sound to natural causes, such as the temperature, the rarefaction of the air and so on. The results of recent research give a new

interpretation of the fact. A careful examination of the chronology of the epigraphs confirms our hypothesis, and also that the death of Antinous, Hadrian's favourite, has to do with the secret of the statue.

PHILLIPS, Jacke

Egypt, Nubia and Ethiopia

Trade has long been the subject of much academic discussion, mainly attempts to ascertain ancient Egyptian contacts with other peoples who inhabited the farther reaches of the ancient known world and more importantly, their luxury goods which Egypt acquired. Discussion of contact to the south-east associated with Punt, today generally considered to be in eastern Sudan, Eritrea and northern Ethiopia, has long concentrated on the so-called Red Sea route, whilst contact directly south with Nubia has focussed on the riverine route of the Nile Valley corridor. This paper draws attention to evidence for a long-neglected aspect of contact and trade with both these regions and Egypt's role in it: the overland trading network that linked them together. Little is understood of this network, but it was in existence at least by the Neolithic period, if not earlier. Some evidence has long been known but little mentioned or discussed, whilst more recent archaeological fieldwork has revealed further evidence that allows some greater understanding of the dynamics involved. Such evidence, both old and new, will be presented.

PIACENTINI, Patrizia

Writing Tools in the Cairo Museum: Preparing the Volume of the CGC

About 150 scribes' and painters' tools are kept in the Cairo Museum, including palettes, water pots, brushes, grinders, lumps of colours, as well as model palettes. In the first twenty years of the XXth century, George Bénédict started cataloguing some of these objects, but he never finished the work because of his death in 1926. A new catalogue of these objects, in two volumes, is now in progress: the first volume includes Bénédict's items, numbered CGC 69001-69099, while the second one includes the scribes' implements that have entered the Museum since Bénédict, except those found in Tutankhamon's tomb. In most cases, their provenance has been established, and their dating is suggested by the typology and the excavation reports.

An important group of nearly 20 palettes, presenting hieroglyphic or hieratic inscriptions, such as royal names, titles and names of scribes, accounts etc., will be discussed in detail.

PICCIONE, Peter

A Family of Priests Revealed in Theban Tombs No. 72 and 121

To date, the University of Charleston/Serapis Research Institute Theban Tombs Publication Project has engaged in five campaigns in the tombs of Ahmose (TT 121) and his son, Rây (TT 72). The two tombs date to the reigns of Thutmose III and Amenhotep II, respectively.

Ahmose was Second Prophet of Amun-Ra at Karnak, God's Father, and Overseer of Upper and Lower Egypt. Where Rây completed the decoration of Ahmose's tomb, he named him First Prophet in Henket-ankh (the mortuary temple of Thutmose III), suggesting that Ahmose was promoted either late in life or posthumously. Ahmose's brother, Neferhebef, was a *wab*-priest in Henket-ankh, while his father, Ramose, was a magistrate (*s3b*).

Rây held seven major titles in four temples in Western Thebes. He was First Prophet of Amun and Menkheperre in Henket-ankh and of Hathor Residing in Henket-ankh. At one time or another, he was First Prophet of Amun in Djeser-set (the 18th Dynasty temple at Medinet Habu), Djeser-akhet (Thutmose III's temple at Deir el-Bahari), and Men-iset (the temple of Amenhotep I and Ahmes-Nefertari). He was also Overseer of the Mansion of Gold of Amun's Estate. Texts in his tomb reveal the names of priest-colleagues, some of whom might have been his brothers.

From the tombs and other inscriptions, we now know the names of members of at least three generations of this family of Theban priests. Apparently, it had close ties to the Thutmoside royal family since it enjoyed certain privileges and status. However, given the personal attacks on the figures of Rây in his tomb and the careful excision of certain of his texts there, it is possible that he and the family ultimately fell from royal favor.

PINCH BROCK, Lyla

The Tombs of Anen

Little is known about Anen, Second Prophet of Amun, commonly believed to be a brother of Queen Tiye and King Aye. The sole sources of information are two ushebti, one from the Rijksmuseum Meermann-Westreenianum in the Hague and one from the Ashmolean Museum, Oxford, and a granodiorite statue in the Turin Museum. Two tombs have been attributed to Anen, the first in the Valley of the Kings (KV 44) and the second in the area of Gurna (TT 120). The latter, probably discovered early this century, was studied briefly by Norman de Garis Davies in the 1920s. It is currently being investigated by the author under a concession granted to the Royal Ontario Museum in Toronto, Canada. TT 120 contains hitherto unpublished paintings as well as the much-published scene of Queen Tiye and Amenhotep III enthroned. Present indications are that tomb may also once have contained a tribute scene on its north wall.

This paper presents a new tomb-plan and information gathered on the life of Anen to date.

PINCH, Geraldine

Redefining Funerary Objects

Recent analyses of some 'funerary texts' have suggested origins in rituals performed for the living. The same may be true for many types of 'funerary object'. This paper will look at a range of objects, such as amulets and figurines, that are generally classified as 'funerary' and examine their significance in religion or magic in daily life. Some object types are best known from the intact material found in tombs, but isolated or fragmentary examples do survive from domestic or temple sites. The full range of archaeological contexts needs to be considered before an object can be interpreted.

Objects that are found in cemeteries are not necessarily 'grave goods' in the restricted sense of equipment for the dead. A variety of reasons for depositing objects in or near tombs will be suggested. It will be argued that relatively few items were made exclusively as equipment for the dead. The aim of this paper is to show that Egyptian 'funerary religion' should not be studied in isolation from other forms of religious activity.

PITSCH, Helmut

Hintergründe für die Reform Echnatons

Es geht um eine Sammlung von Argumenten, um bereits Bekanntes, um Vermutungen und Fragen als Anregung für künftige Untersuchungen.

Nachdem mit dem Ende der 5. Dynastie der heliopolitanische Sonnenkult aufgegeben worden war, gewann im MR durch den Begründer Amenemhet I., einem Mann aus dem oberägyptischen Theben, dessen bisher nahezu unbekannter heimatlicher Lokalgott zunehmend an Bedeutung und wurde in der Folge mit zahlreichen Komponenten ausgestattet zum König der Götter und in der 18. Dynastie schließlich zum Reichsgott erhoben: Amun.

Amuns Herkunft weist in nubo-libysches Gebiet. Seine Wirtschaftsmacht verdankt er der wiederholten Inanspruchnahme für die Legitimierung von Königen; seine Karriere jedoch nur zum Teil.

Mit Thutmosis IV. setzte eine Rückorientierung ein: Der illegitime Königssohn erhielt die Zusage künftiger Herrschaft von Re-Horemachet [in Gisah], auch Horoun genannt [ein syrischer Gott]. dessen göttlicher Ort der Aton ist, die Sonne.

Um Aton kreisten dann die Gedanken am Hofe Amenophis III. Eine Schlüsselfigur war vielleicht Aanen, Bruder der Teje. Die Gegenbewegung diente offenbar der Begrenzung von Amuns Machtfülle. Amenophis IV. aber war bestrebt, ihn radikal zu beseitigen.

Grund dafür war die Königsideologie, andererseits wahrscheinlich die Herkunft und Ausgestaltung Amuns. Dazu aber kam ein fundamentalistischer Wahrheitsanspruch und fremdartiger Despotismus.

Seit Thutmosis IV. waren nämlich Königstöchter mit Gefolge aus Mitanni in den Palast gelangt. Stammten auch Yuya, Tejes Vater und, alte Streitfrage, Nofretete von dort? Jedenfalls hielt sicherlich neues Gedankengut Einzug; die mitannische Oberschicht waren Indoeraner.

Vielleicht läßt sich aus solchem Einfluß die Hinwendung zur Gegenwart erklären, zu naturhaftem Kunststil, aber auch der krasse Dualismus von Licht und Finsternis, Gut und Böse, ferner die Absage an Mythologie und Kult hin zu reiner Verehrung, schließlich die neue Weltsicht: Ein Gott für alle Völker.

POMERANTSEVA, Natalia

Sculptors' Models and Unfinished Works of Ancient Egyptian Masters: A Problem of the Creative Method of an Ancient Egyptian Sculptor

The subject of this paper is the role of sculptor's trial pieces in the creative process of Egyptian masters. There is a widespread opinion that the heritage of Egyptian art consists of masterpieces only. But it is not so. There is a special class of objects—the so-called sculptural models—that were made for instructive purposes. Among them there are pieces of different quality and function—sculptor's trial pieces, sculptor's studies, practice pieces and models for apprentices to copy. All these pieces are of small size. They do not form a unified group, though they are generally treated together. Among them there are up-right human figures, heads of kings or gods made separately and representations of animals, birds and hieroglyphs. Some details of a human figure, made perfectly, such as a foot, a torso and busts, may be considered to be votive pieces. It is known that many examples were discovered in graves.

According to their canon, the Egyptian masters usually represented an upright figure; the absence of some its parts (such as one shoulder in pure profile) was considered to be defective and such figures could not be used for any ritual function. However, we also know of several heads and busts, made separately, and dating back to the Old Kingdom and New Kingdom. To these belong the so-called 'reserve' heads, the painted bust of Prince Ankh-haf (Museum of Fine Arts, Boston) and the head of Salt (New Kingdom Louvre, Paris).

The overwhelming majority of sculptural models belongs to the Ptolemaic period. The Hellenistic epoch was a time of close contacts between Egypt and the antique world. The Greeks and Romans accepted the Egyptian funeral cult and adopted some types of their sculptural composition. In their turn they introduced their devices of modeling round sculpture and relief. The Egyptian masters tried to preserve the purity of their age-old local tradition by making sculptural models and unfinished works for this purpose. Among the

round sculptural models there are numerous royal busts. Many of them were left unfinished deliberately to manifest distinct stages of work. Egyptian masters left traces of incised lines on the back, while the main lines constituted a grid of squares. I believe that this grid is a mechanical contrivance to fix the canonical proportions. It bears derivative functions. The sculptural models are the ideal patterns demonstrating canonical rules not only in abstract form but also in visual realization.

POO, Mu-chou

Egyptology and Comparative Ancient History

This paper focuses on two issues: (1) The problems and advantages of comparative study of history, (2) the contribution that Egyptology could offer to the comparative study of ancient history.

In the first part, I will discuss the nature of comparative study of history, its problems, and its advantage, and finally its importance as a form of the study of humanity. In the second, I will provide a number of examples to show that if we choose the appropriate subjects and issues that are of common interest in the comparative study of ancient civilizations, Egyptology could offer interesting and vitally important information and be an indispensable component of this study. In fact, any comparative study of ancient civilizations would not be complete without the participation of Egyptology. In the 21st century, when the world is coming closer as one community, the significance of understanding the ancient civilizations as part of the whole story of humanity via comparative studies cannot be over-emphasized.

POPIELSKA-GRZYBOWSKA, Joanna

The Problem of Atum's and Khoprer's Mutual Relationship in the Pyramid Texts

The problem of Khoprer's appearance in the Pyramid Texts seems to be crucial in understanding Atum's complexity and enigmatic character as a demiurge. Scholars are not of a concerted opinion regarding Khoprer, even the translations of the word *hpr* differ. Some scholars interpret it as the name of the god, others as a scarab or as a form of the verb *hpr*. Of the two of them Atum received more attention and was thoroughly discussed in the monograph by Karol Mysliwiec.

One cannot with any degree of certitude ascertain that Khoprer was a prior concept. Both Atum and Khoprer are inextricably linked to the solar aspect of the Egyptian religion. Nonetheless, it is not utterly evident how weighty the solar aspect of Atum-the-god and Khoprer-the-god used to be. Although Atum is perceived, in his solar aspect, as the setting sun—the Finisher, This-who-is-perishing, — his notion was also strongly connected with the act of revivifying; on this plane Atum is identical to Khoprer.

Moreover, the concept of priority of the deities' names combined in syncretic names, e.g. Atum-Khoprer or Ra-Atum will be discussed.

The author of this paper will attempt to scrutinize, reasoning the contextual arguments, the conception of Atum as a self-generated god in the Pyramid Texts. The fragments mentioning *tm* and *hpr* or *hpr* itself will be analysed. The emphasis will be laid on the meaning, which both words mentioned above convey in the Pyramid Texts, and their possible usage as epithets.

POSTEL, Lilian

La titulature des rois Antef de la XIe dynastie: État des questions et nouvelles perspectives

L'intérêt manifesté dans la première moitié du xxe siècle pour les titulatures des rois Séhertaouy, Ouahânkh et Naktnebtépnefer Antef résultait essentiellement d'une volonté d'établir la succession des souverains de la XIe dynastie. Les remarques ponctuelles sur leurs particularités visaient alors à appuyer les propositions de reconstitution de l'histoire événementielle de cette période qui ont pendant longtemps alimenté la polémique.

En trente ans, les fouilles d'Éléphantine et d'El-Tarif ont considérablement accru notre documentation sur les débuts de la XIe dynastie. Les protocoles royaux occupent une place de choix dans cette documentation épigraphique et un examen minutieux paraît maintenant s'imposer. Plus que les autres sources, trop laconiques, ils reflètent de façon privilégiée les conceptions royales développées par les Antef et témoignent de la résurgence d'une tradition monarchique, renouvelée, dans un contexte thébain.

Si l'agencement régulier des principaux titres royaux traditionnels que comprennent ces titulatures ouvre la voie à la mise en place du protocole dit «classique», le contenu sémantique des noms d'Horus révèle en revanche des emprunts à la phraséologie privée issue des autobiographies de la Première Période intermédiaire. Ces emprunts, qui répondent chacun à l'un des fondements de la légitimité des Antef, se manifestent encore par l'adjonction d'épithètes telles que *âa* et *nakht* ou de la filiation «qu'a mise au monde Néfrou»—puisque telle doit être définitivement comprise l'expression *ms(w) Nfrw*. Comme la formule d'eulogie *ânkh (mi Rê) djet*, seule attestée, ces éléments constituent de pertinents indicateurs chronologiques aptes à fournir des arguments dans la controverse entourant la datation de certains monuments.

PRAGT, Huub

Slaying the Umbilical Snake

In several texts dealing with the Egyptian underworld, the two parts of the lower jaw of Osiris are considered as a protecting instrument against his

enemy, the snake-god Apophis. In Papyrus Bremner-Rhind, Apophis is called the umbilical cord of Ra. The same text shows that Apophis is slain in order to provide Osiris with his daily meal. A scene in the temple of Edfou shows a royal offering of the *pss-kf* instrument towards the face of Osiris. The text relates to the two parts of the lower jaw of Osiris. Their teeth are sharp, so that they can do their work and enable Osiris to have his [daily] meal. In the Pyramid Texts and texts from the opening-of-the-mouth-ritual the *pss-kf* also relates to the two parts of the lower jaw of Osiris. Prehistoric examples of this ritual instrument are split knives of flint or obsidian with sharp-notched teeth on both curved edges. Coffin Texts spell 469 speaks of a *kf*-instrument being used in the divine slaughterhouse. Orion is petitioned to bring the two parts (*pss.wy*) of a knife used for punishment. The two 'hostile ones' (*tkn.wy*) will be slaughtered by the two parts of this dangerous knife that are called the two 'torturers' (*ssm.wy*). These torture-gods are related to "those who belong to the *kf*-instrument". About the slaughtering it is said that it is to be made for the daily meal [of Osiris].

PROUSSAKOV, Dmitriy B.

The Life Cycle of Ancient Egyptian Civilization: Environmental Limits

Palaeoecological data and historical sources allow us to estimate the silt accumulation in the Nile floodplain in the first millennium BC (Late Period) as twofold in comparison with that of the third-second millennia BC (from the Old to the New Kingdom); accelerated silting was also characteristic for the pre-dynastic period in Egypt. It is argued here that pharaonic civilization emerged and evolved within the strictly limited period of geological and hydrological history of the Holocene Nile Valley, notable for the minimum rate of the alluvium deposition and, correspondingly, optimum correlation between flood levels and level of the floodplain terrace. This correlation ensured the sufficient area of natural irrigation or, at least, allowed to do with the most simple means of artificial irrigation of the high lands; its breach in the first millennium BC must have resulted in the decline of traditional irrigation systems and demanded from the Egyptian population radical technological, economical and administrative reorganization, in which the final political collapse of pharaonic Egypt is hypothesized to have been rooted.

PUSCH, Edgar B.

Further Steps towards a Map of Pi-Ramesses

Sponsored by Volkswagen-Stiftung, Hannover and the Deutsche Forschungsgemeinschaft, Bonn and accomplished in co-operation with the Supreme Council of Antiquities, magnetic prospections were carried out by the Bayerisches Landesamt fuer Denkmalpflege, Munich, and the Pelizaeus-

Museum, Hildesheim, at Qantir, the site of the ancient capital of Egypt in Ramesside times. It was the declared aim of the first measurements in 1996 to test geophysical methods for prospecting for architecture built with sun dried mud bricks within a Nile clay surrounding. The Caesium Magnetometer SMARTMAG SM4G special with duo-sensor configuration not only recorded thick mud brick walls and sand foundations for columns, but also such small and tiny features as negative alignments. While parallel measurements with Fluxgate Gradiometer Geoscan FM 36 gave similar results, the resistivity meter Geoscan RM 15--both used under the supervision of Dr. H. Becker, Munich by a team of the National Research Institute for Astronomy and Geophysics, Helwan University--recorded the difference between sand- and stone-foundations but no mud bricks at all.

Archaeological structures at greater depths were detected by caesium magnetometry with multi-sensor technique only. Two measuring teams of four people each had covered by autumn 1999 an area of approximately 78 ha (780,000 square meters), within less than 30 days (1996/99) proving the existence of vast living quarters with villas, gardens, wells and smaller houses aligned along streets as well as lakes and an empty area which is tentatively identified as part of a harbour with its reinforcement east of site Q IV.

The region south of Q IV and south of Q I is covered by vast buildings of mostly unknown function. Those may be interpreted as temples, parts of palaces, and, most of all, administrative buildings. Also clearly discernible are two huge halls with several hundred mud brick pillars each at the northern edge of the measured area, which are similar to the so-called Coronation Hall at Tell el-Amarna. The southern and western edges are destroyed by a waterway or channel dating to late Roman or even Islamic times, according to pottery recovered from it at site Q I. Measurements north of this area most probably revealed a huge cemetery consisting of small structures aligned along streets and further villas. Working in the region of Tell Abu el-Shaf'ei, the excavation site of Shehata Adam in the 1950s, proved that the feet of the colossal limestone statue of Ramesses II as well as his inscribed column base are not *in situ*. On the contrary, they are blocking the passages between a small temple and its temenos.

The results clearly demonstrate that using caesium magnetometry in multi-sensor configuration not only leads to negative alignments of isolated features, but to detailed ground plans of individual buildings as well as settlement features, available on the evening of the day of field work. Therefore this technique seems to be the most suitable method to survey and evaluate city maps not only in such regions as Qantir, which is covered by agriculture, but in the Nile Delta altogether and elsewhere. Excavation then has to add the stratigraphy, date, and function of selected spots which may be of special interest because of one reason or the other. The technical procedure of the measurements, the resulting X-ray-like pictures, their interpretation and evaluation are presented and discussed as well as first steps towards drawing a block map of Piramesses-Qantir.

RABINO MASSA, Emma, Nicoletta CERUTTI and Alessandra MARIN,

Application of Immunological and Molecular Methods to the Study of Egyptian Mummies

Extensive research on the Egyptian skeletal and mummified remains belonging to the Marro collection (Anthropological and Ethnographic Museum of Turin) has shown the presence of severe anaemia in ancient Egypt. To clarify the precise cause, we investigated these mummies with immunological and molecular methods.

We detected malaria on skin, muscle and bone in Predynastic remains (Gebelen, 3200 B.C.), applying an immunoenzymatic assay which reveals the trophozoite histidine rich protein antigen (PfHRP-2) derived from *Plasmodium falciparum*.

We also verified at molecular level the presence of sickle cell. It is common knowledge that the haemoglobinopathies represent ecological mutations with the ability to protect from malaria.

These samples were selected on the basis of a good state of preservation, the presence of extensive bone pathologies characteristic of haemoglobinopathies and the negative result to immunoenzymatic assay detecting *Plasmodium falciparum* infection.

The DNA has been extracted from dental samples with a proper silica-gel method for ancient DNA. A modification of the polymerase chain reaction (PCR) called the amplification refractory mutation system (ARMS) has been applied. ARMS is based on specific priming of the PCR and it permits diagnosis of single nucleotide mutations. To verify the presence of the beta globin mutation we are sequencing the amplification products.

In the present communication we will present the latest results regarding the molecular evidence of HbS mutation in these mummies.

RABINO MASSA, Emma et Gilles BOETSCH

La collection ostéologique égyptienne du laboratoire d'Anthropologie de Turin

Depuis quelques années, l'intérêt des études paléanthropologiques et paléopathologiques se porte plutôt sur l'étude de larges collections ostéologiques que sur l'étude de squelettes isolés. Cette tendance fait suite au déplacement général de l'objet d'étude des sciences anthropologiques, de l'individu (ou cas paléopathologique isolé) vers la population ou tout du moins vers des séries ou des échantillons ostéologiques jugés plus représentatifs des populations du passé.

De ce fait, il y a donc lieu de développer, à travers la notion d'archives biologiques, la collecte, la conservation et la mise en valeur du patrimoine constitué par les séries ostéo-archéologiques.

Ces ostéothèques nécessitent, pour être des séries de références, de pouvoir bénéficier d'opération de restauration, de conservation et de

catalogage. En devenant des références, elles sont indispensables aux expositions muséologiques, en particulier par leur aspect didactique.

A partir de 1911, G. Marro participa, en qualité d'anthropologue, à l'expédition italienne d'archéologie en Egypte et rapporta en Italie, outre quelques momies, une formidable collection ostéologique portant sur l'ensemble de la période pharaonique et sur l'énéolithique. Cette collection possède une grande valeur scientifique en étant la quatrième au monde tant par la quantité des pièces que par la qualité de celles-ci.

Comme nous l'avons déjà dit, l'originalité du travail de Marro est d'avoir introduit l'étude de la série sur les populations de l'Égypte ancienne dans le but de quantifier les caractères morphologiques. Marro concevait l'anthropologie comme située dans une histoire naturelle de l'homme, mais une histoire qui devait intégrer non seulement les aspects biologiques, mais aussi les aspects culturels et environnementaux.

RADWAN, Ali

Some Remarks Concerning the Superstructure of Some Mastabas at Abusir

The Cairo University expedition at Abusir discovered some great mastaba tombs dating from the late First Dynasty, with most of their superstructures and enclosure walls still intact. In one case, mastaba XXIV, a boat grave was found in good condition. Small graves (sometimes in mastaba form), scattered outside the enclosure walls, can be considered subsidiary ones. Four other empty graves that were found, built inside the enclosure wall of Mastaba XVII, are of special significance. Evidence strongly supports the conclusion that cult ceremonies were held in front of the eastern side of those mastabas.

In the hilly area between the Sun Temple of Userkaf and the pyramid of Sahure was a group of robbed burial shafts, which has been assigned to the Fifth Dynasty. Some of them may belong to one family as they are cut in order to the west of a long wall with its false doors and two offering tables still *in situ*.

RAMADAN, Wagdy

La chapelle de Thoth à Abou Simbel

Cette chapelle est située au sud du grand temple d'Abou Simbel. L'architecture de ce petit monument est des plus simples: il se compose d'une cour et d'un speos. L'axe de la cour diffère sensiblement de l'axe du grand temple, alors que celui du speos s'en rapproche. Le monument est orienté est-ouest.

L'étude de cette chapelle est très intéressante dans la mesure où elle nous a conduit à préciser quelques informations sur le culte du dieu Thoth

dans le territoire d'Abou Simbel et de la Basse Nubie.

On voit là combien les anciens Égyptiens étaient de très minutieux observateurs du monde astronomique. C'est la raison pour laquelle, cette chapelle a été construite dans cet endroit d'où émerge le soleil. Cette idée est sûrement en relation avec le phénomène qui avait frappé certains archéologues et voyageurs du siècle passé.

Nous savons que les premiers rayons du soleil pénètrent deux fois par année jusqu'au sanctuaire et y éclairent la statue de Ramsès II divinisé. On sait que le roi Ramsès II fut divinisé dans plusieurs temples, le culte se rapportant en ces lieux à l'aspect guerrier du roi conquérant.

REDMOUNT Carol A.

Persian Period Houses at Tell el-Muqdam

Five seasons of archaeological investigations at the central Delta tell site of Tell el-Muqdam by the University of California, Berkeley, have revealed that the site was founded in the Third Intermediate Period and that mostly Persian Period occupation remains accessible above the current water table. This Persian Period occupation of the site was substantial and it is comparatively well preserved, and Muqdam thus provides an important opportunity to extend our limited knowledge of Persian period settlement sites.

In this paper I shall discuss the remnants of a late fifth century BC neighborhood fragment, comprised of portions of at least 7 individual structures along with the streets and alleyways separating some of the structures, that were uncovered in the 1993 and 1995 excavation seasons. An accompanying paper by Dr. Brian Muhs will place these structures within a comparative historical and archaeological context.

REFAI, Hosam

Notes on the Function of the Great Hypostyle Hall in the Egyptian Temple: A Theban Approach

The Hypostyle Hall of the Egyptian Temple had no homogeneous architectural background, fixed designation or uniform function, but served primarily as the place where the glorification of the king and his confirmation in rule were manifested. The Pillared Hall of the Akhmenu was a stage for the rites of the temple, where the royal cult was a dominant feature. The Akhmenu may have been a predecessor of the Luxor Temple as a place for renewal of the king's power and legitimacy. As an assembly point for the barques and their point of departure to processions, it was the predecessor of the Great Hypostyle Hall at Karnak. In Luxor the Hall served as a stage for the renewal rites performed in the temple and was probably the *Maru* of Amenophis III. The Hall at Karnak had the aforementioned practical function as well as a ritual function associated with the king, probably serving as a

'representative building' for the royal cult—a sort of 'royal temple within the divine temple'. The Halls of the Qurna Temple of Seti I, the Ramesseum and Medinet Habu, together with their side chapels, were all dedicated to the cult of the deceased king. The barques of the gods rested in the Hall, to be joined by that of the king to process in symbolic renewal of his legitimacy. In the side chapels of the Hall the king was united with Amun and could enter the inner part of the temple as a god.

REIMER, Heiko

The Re-conquest of the Great Sand Sea

Since 1995 archaeological investigations of the ACACIA project have been conducted in the area of "Regenfeld" (south-eastern Great Sand Sea). The excavations and surveys give new evidence for the epipalaeolithic re-occupation of the desert by prehistoric people, and for the occupation during the Early and Middle Holocene when the climate changed to better conditions.

Radiocarbon analysis dates the earliest epipalaeolithic remains in this area to around 8300 BC. Moreover, epipalaeolithic and mid-neolithic features date between 8000 and 6000 BC. Nevertheless, the Great Sand Sea during the so-called holocene "wet event" was far from being a paradise, offering only sparse resources. Thus, the rich archaeological remains are situated on favoured sites at mud pans associated with vegetation and temporary water. Archaeological research allows us to reconstruct the cultural and economic development and adaptation to this changing environment. The question of economic change and the introduction of domestic animals and pastoralism may be discussed, based on the evidence from plant and bone remains. Domestic fauna is not documented in the archaeological inventories, but there are rich remains of hunted wild animals. Although the Great Sand Sea was occupied, there is no indication that the favoured sites could be used for longer stretches of time. The prehistoric groups had to travel seasonally or temporarily from site to site, or to more favoured regions when the lakes ran dry. Such 'exotic' artefacts as bifacial tools, which are common in the oases of the Nile Valley, and the identification of the sources of raw materials focus on such movement.

RESHETNIKOVA, Nadezhda A.

Alternation of Egyptian Temple Forms in Ancient Nubia

Architecture played an important part in ancient societies as a way of fixing information about social, cultural and religious norms. The alterations that took place in the cultural life of society were often reflected in religious buildings.

Ancient Sudanese architecture gives us the unique opportunity to trace

the transformation of the forms of Egyptian cult structures, which were introduced in Ancient Nubia under different historical conditions. The relevant periods are the time of Egyptian dominance in Kush (Dynasties 12-19), the 25th dynasty, and the time of formation of the independent Meroitic State (3rd century BC–3rd century AD). The analysis of temple forms brings to light the fact that one and the same architectural element could be used in different ways by Egyptians and Nubians. The observation of these alterations reveals a regularity which is valid for the use of architectural forms as well as for socio-cultural processes and it permits us to judge of the perception and interpretation of Egyptian culture by Nubians.

REVEZ, Jean

The Kings' Brothers' Role in Ancient Egypt with Respect to the Transmission of Royal Power

This paper deals with the role played by the kings' brothers in ancient Egypt in relation to the royal succession, from the 11th until the 25th dynasty and the Napatan Period.

Emphasis will be placed on how royal ideology came to grip with the occasional use of collateral succession, when social customs and the Osirian myth of kingship traditionally stressed the transmission of power from father to son. As royal inscriptions give us a very sketchy glimpse into the role of the kings' brothers in general, literary and mythological material will be used to shed greater light on their role in connection with the royal succession. These sources show that the kings' brothers could be of great help to the king when no suitable crown prince was available, but that they could also represent a great threat to Pharaoh's might. The dual character of the kings' brothers finds expression in the metaphoric use of the word *sn*, <<brother>>. Referring in most cases to someone as an <<equal>>, *sn* conveys a meaning of rivalry in a context of inheritance, as when Horus and Seth fight for the heritage of Osiris. The Sethian myth and the highly hierarchical nature of Egyptian society go a long way in explaining why the title *sn nsw* <<king's brother>> became widespread only at a very late stage in Egyptian history, when the 25th dynasty Ethiopian kings adopted a new mode of succession.

RICHARDS, Janet

The Old Kingdom Mortuary Landscape at Abydos

In the 19th century, Mariette excavated the inscriptions of several VIth dynasty officials from a location he termed 'la necropole du centre' at Abydos, a prominent hill on his early map of the site. Located on the extensive low desert plateau, this zone was the first part of the North Abydos necropolis opened for private use, following the establishment of a restricted landscape centered on the Early Dynastic royal burials. However, given the paucity of

contextual data published by Mariette and the lack of subsequent systematic excavation in that zone, little is known about the physical character of the burials made in that zone or spatial relationships within the cemetery.

Several British missions in the early 20th century clarified the nature of late Old Kingdom activity in the areas surrounding this Mariette zone, excavating well over a thousand relatively modest shaft and surface graves with little or no surface architecture in Cemetery E, and on the North-eastern Ridge. More recently, two survey seasons in 1995 and 1996, and a recently completed excavation season in 1999, have documented the presence of extremely large mudbrick burial complexes throughout the Mariette zone bracketed by these areas, and data on the character of provincial elite burials in the late Old Kingdom. The emerging picture is that of a substantial and spatially differentiated cemetery, whose growth paralleled the rise of the importance of Abydos in the late Old Kingdom.

ROCCATI, Alessandro

The Italian Archaeological Mission of Rome University "La Sapienza"

This paper presents the main results of excavation in TT 27, as the operations on that site now approach the end. The research achieved an almost complete recovery of the decorative programme of the tomb, which will be illustrated together with the "philosophy" underlying the study of the finds as well as the reconstruction. A sample of the restoration work on the paintings of TT 240 will also be shown, undertaken before this site was withdrawn from the care of the aforementioned Mission.

ROCHA, Ivan Esperança

The Greco-Roman Concept of *Otium*: A Relationship between Egypt and Israel

The concept of *otium* has been traditionally understood as a characteristic of the Graeco-Roman culture. However, a more attentive analysis of the ancient documents also indicates the practice of *otium* in the culture of ancient Egypt and the Near East, as well as that of Israel.

In spite of the fact that it was through the artisan and his artefacts that many of the vestiges of ancient material culture have reached us, the artisan is considered in Rome, in Greece, in Egypt and in Israel as a man of second class. Politicians, scribes and administrators are considered superior to the individuals who exercise liberal professions, a mentality evidenced by Seneca, Cicero, Horace (Ode II-XVI) and, particularly, by Aristotle (Politics 1,5,19).

RODRIGO, Alicia D.

An Ancient Mendesian Industry

Classical authors mention Egypt as a well known centre for the production of ointments. In Hellenistic times, the city of Mendes, the capital of the XVII name of Lower Egypt, was particularly noted as the home of an industry which produced the *Mendesian*, an aromatic unguent which was considered as one of the choicest and most expensive of the ancient world. The archaeological work carried out by the University of Toronto since 1991 at the site of Tell er Rub'a, has produced a number of clay vessels which may be related to the local industry. Questions concerning the location, characteristics and antiquity of the industry and also the causes that made Mendes a reputed centre for aromatic ointments production are discussed in this paper.

ROSATI, Gloria

Working on Middle Kingdom Stelae in Turin

The work on the Catalogue of the Stelae between the Old and the New Kingdom in the Egyptian Museum in Turin is progressing steadily and even with surprises: an "excavation in the Museum" allowed the rediscovery of a red granite stela that had passed unnoticed until now, belonging to a man named Memi. It is even more interesting as it could be ascribed to an already set-up dossier.

Middle Kingdom stelae give rise to a lot of research and inquiries: the Turin Museum has one of the quite rare stelae with boustrophedon inscriptions, a stela not yet published, but already described by H.G. Fischer (Suppl. 1266). By an odd coincidence, another one happens to be in northern Italy, in the Civic Museum of Asola (Mantova): this stela was published in 1942, but perhaps is not widely known. The paper would point out the peculiarities of these texts and show the small group that has been collected.

ROSSO, Ana Maria

Le symbolisme religieux des *oudjats* de Tell el-Ghaba: Les problèmes techniques de leur préservation

Ce travail est consacré aux *oudjats* car, à mon avis, dans la pensée égyptienne, ils représentent le symbole par excellence de la restauration et de la réintégration comprises, bien entendu, comme la possibilité de donner une nouvelle vie, naturelle ou spirituelle, à des objets. Nous étudierons ceux que nous avons découverts à Tell el-Ghaba (Nord du Sinaï) appartenant à l'époque tardive et ayant par conséquent des connotations astrales, liées au soleil et à la lune. Nous aborderons ensuite le pouvoir du regard qui peut générer la lumière ou l'obscurité totale à travers la pupille.

Le matériau utilisé pour leur fabrication, la faïence ou *thnt*, a aussi un symbolisme lumineux assimilé aux astres et aux constellations. Ainsi, l'Œil d'Horus devient étincelant, avec un éclat ramenant à la joie et à l'espoir qui éloigne de la nuit noire où pointe la lueur de la lune et des étoiles. Matière fabriquée par les dieux et modelée par Ptah, sa formule devient un don divin, plein des pouvoirs. Cependant, il n'empêche qu'il s'agit d'un composé chimique extrêmement fragile et friable qui pose de graves problèmes au niveau de sa préservation et de sa restauration.

ROTH, Ann Macy

Politics and Patterns in Pyramid Placement

Historical accounts of the Fourth Dynasty often claim that King Djedefre was at odds with his family because he built his pyramid at Abu Roash, some distance north of the dynasty's principal cemetery at Giza. This conclusion is based on untested assumptions, however, and the meaning of pyramid placement has never been systematically studied.

In fact, in the context of the placement of other Fourth Dynasty pyramids, the true exceptions to the Fourth Dynasty pattern are the pyramids of Khafre and Menkaure, and not that of Djedefre. Although the location of a king's pyramid was limited by the availability of good stone, within that limitation, pyramid placement was in some periods very much influenced by political and propagandistic considerations. The position of a king's pyramid, viewed in the context of other pyramids of his dynasty, can be evaluated with the other historical and archaeological evidence for his reign to reveal the degree to which his claim to political legitimacy was based on association with his predecessors, as well as which of those predecessors he wished to associate with himself.

In this paper, a brief survey of pyramid placement in the Old Kingdom will demonstrate the patterns that were followed in different periods and attempt to explain the exceptions to the general rule. The patterns revealed suggest changes in the Egyptians' view of the past over the course of the Old Kingdom, and offer some possible answers to historical questions.

ROTHER, Russell D.

Using GIS to Examine Spatial Distribution of Pharaonic Inscriptions from the Southern Eastern Desert

The University of Minnesota Egyptian Eastern Desert Expedition (UMEEDE) has been working in the southern Eastern Desert for over seven years. During that period we have walked thousands of kilometers of wadis, discovered ancient mines and settlements, found evidence of pharaonic exploitation of ancient tin resources, and discovered over 200 previously unrecorded inscriptions. In addition, using accounts of previous travellers, we

have relocated, photographed, and recorded GPS positions on an additional 100 inscriptions. All this in an area bounded by the Nile and the Red Sea on the west and east, and by 24(N and 26(N on the north and south, about 40,000 square kilometers. While none of the inscriptions say much in themselves, together they can tell us much about pharaonic activity in this little known part of Egypt. The UMEDE has been using Global Positioning System (GPS) and Geographical Information System (GIS) technology to examine spatial distribution of the inscriptions during different time periods and how that distribution changed over time. When inscriptions were found, we photographed them and took a GPS position. After translating them we built a database which included the location, name, title, and approximate date for each inscription. Using AutoCAD, we built a detailed map of our project area. Finally we used an Arcview GIS program to connect spatial and attribute data. With the coverage built we began forming queries, i.e. asking the computer to display the data in different combinations. We asked, for example, to see the locations of all New Kingdom inscriptions or all inscriptions which included the title *'ps nswt*. The results of those queries form the basis of this presentation.

ROULIN, Gilles

God and Man: Formulas and Maxims on Seal Amulets

In his publication of stelae from Deir el-Medina, A. Erman revealed in 1911 a group of texts documenting the religious phenomenon called "personal piety" characterised by direct, personal relations between God and Man. In 1912, J. H. Breasted defined the Ramesside Period as the "age of personal piety". Other sources, such as prayers, hymns, autobiographies, instructions, letters, literary texts and royal inscriptions, have been studied since then, allowing a more differentiated approach to this phenomenon that has already been attested in textual evidence from the early 18th dynasty.

Personal piety has been interpreted as complementary to the official religion or, on the contrary, as a 'great ideological mutation', pervading all the domains of culture—thus leading eventually to the replacement of Maat by the will of God.

Another source, the seal amulets, which are definitely relevant for the study of this significant phenomenon, has been neglected until now. The inscriptions on small scarabs are subject to variations and perturbations, and the playful or "sportive" system of writing is a further difficulty for the deciphering of such formulas and maxims.

A project supported by the Swiss National Science Foundation made it possible for me to document several thousand largely unpublished scarabs from the most important collections in the world. The purpose of this paper is to present an alternative approach to the phenomenon of personal piety, based on some of the topics attested on seal amulets.

ROWLAND, J. M. and F. A. HASSAN,

The Computerised Database and Potential for a Geographical Information System at Kafr Hassan Dawood

A computerised database has been established for Kafr Hassan Dawood. The database holds comprehensive details of the graves excavated at the cemetery site from 1988 until present. Graves dating both to the Predynastic/Early Dynastic periods and Late Period/Ptolemaic periods are included within the database.

The database provides information pertaining to the location of the graves, associated grave goods, orientation, shape and dimension of graves, presence of skeletal remains, and sex and age of the interred, where this information is available. The types of grave goods have been classified under 17 columns and these include pottery and stone vessels, a variety of copper objects, flint knives/blades, beads/bracelets and make-up palettes.

The computerised database will be useful in the study of the cemetery site, and has already been utilised for preliminary investigations into wealth distribution. The database will be essential to a variety of research questions in the future, both inter- and intra-site, and presents the data in a very accessible medium.

The GIS for Kafr Hassan Dawood is currently in its preliminary stages, however, it is envisaged that once the database has been integrated with the digitised site plan, this will pave the way for a multi-media system for the site and allow for extensive spatial analysis and instant access to site information, including some photographic records and site plans/drawings.

RYHOLT, Kim

Narratives from the Tebtunis Temple Library

The Tebtunis Temple Library is the largest assemblage of Egyptian literary texts ever found. Parts of the library became known already around 1930, but most of it still remains unpublished, undoubtedly owing to the fragmentary nature and relative late date of the material (1st-2nd cent. AD). For this reason the library is hardly known outside a small group of specialists.

The purpose of the present paper is to bring the existence and importance of the library to the attention of a wider scholarly public, with special attention on the numerous narrative texts. Among the narratives are texts already known from other sources as well as many completely new stories. Many of the new stones belong to the cycles of stories about Inaros, Setne and the Heliopolitan priesthood. Others, including a long narrative about King Djoser and Imhotep, are independent of these cycles. Among the more spectacular discoveries are Egyptian versions of stories that have previously been known only in Greek translation such as the stories of Sesostriis and Pheros that have been transmitted through Herodotus and Diodorus, and Nectanebos' Dream.

RZEPKA, Sławomir

Methods of Optimising Sculptors' Work During the Old Kingdom

For the Egyptian sculptor it was surely important to make the most efficient use of the material at his disposal and of his own work. These tendencies were the sources of many interesting features in private sculpture. After a short review of different "optimising" techniques, I will pay some attention to one quite common feature of seated stone statues, which has been so far unexplained and which in my opinion was a result of the same tendencies towards "optimisation".

In many seated statues we can observe that the rear surface of the seat is not vertical, but leans backwards. The only possible explanation of this is purely technical: the rear face of the seat is the remains of the surface of the original cuboid block of stone of which the statue was made. It means that not the bottom but the rear surface of the block is preserved in a statue.

This technique could give the sculptor two benefits: 1) the block of stone needed for a statue with leaning rear face of the seat was smaller (about 15–20 % of its volume) than a block for a normal statue; 2) this technique must have been used for the production of seated statues from blocks, which by their proportions it seems were predestined for standing statues. In blocks for standing statues the proportion of the height (H) to the depth (D) of the block (H: D) was approximately 2.5 : 1. In blocks for "normal" seated statues this proportion H: D was about 1.5 : 1. Proportion of the blocks for statues sculpted in the technique in question was about 2:1. So this technique made possible universal blocks, which were equally suitable for standing as well as for seated statues.

SADEK, Ashraf Alexandre

Bilan des connaissances sur la religion populaire au nouvel empire

Dès sa naissance au début du XIX^e siècle, la science égyptologique a compris que la religion était le centre, le moteur et le ciment de la prestigieuse civilisation pharaonique: Mariette, Erman, Jean Sainte-Fare Garnot, Gardiner, Breasted, Frankfort et bien d'autres se sont penchés avec passion et compétence sur les divers aspects de la religion des anciens Égyptiens. Mais pendant longtemps, parler des «anciens Égyptiens» consistait essentiellement à parler des Pharaons et de leur univers; à croire que l'Égypte était peuplée de pharaons...

Au début du XX^e siècle, certaines découvertes archéologiques ont ouvert les yeux des chercheurs sur les autres aspects de la société égyptienne; la fouille du village des artisans et artistes de Deir el-Medina, en particulier, a permis de découvrir de nouveaux horizons sur la vie à Memphis, Kahon, etc. Sur le plan religieux, on a peu à peu découvert l'existence de petites

chapelles où s'exprimaient les croyances du peuple, dans des traditions cultuelles souvent différentes de celles du culte officiel pratiqué dans les grands temples. Ces sites nous ont livré des documents d'une extrême richesse, expressions de piété personnelle proches de l'âme du peuple égyptien: ostraca, stèles, objets divers ont dévoilé progressivement cette foi et ses pratiques.

Dès la première moitié du xxe siècle, les recherches dans ce domaine se sont multipliées. Les documents furent dépouillés, recopiés et mis à la disposition des chercheurs par Bruyère, Cerny, Gardiner; à leur suite divers égyptologues les ont traduits, approfondis, analysés, afin de comprendre ce qu'ils pouvaient nous révéler sur la vie et l'âme de l'Égyptien «moyen». Une quête passionnante dont nous retracerons ici l'histoire, avant de faire le point sur l'état de nos connaissances dans ce domaine de la piété et des traditions cultuelles populaires en Égypte au Nouvel Empire.

EL-SAGHIR, Mohamed

Quarter Temples Found among the Houses of Thebes at Abu el-Gud in Luxor

The SCA excavations undertaken at Abu el-Gud in Luxor have revealed a neatly planned series of houses, chapels, workshops, grain silos and many other particulars. Among the most interesting structures revealed in the course of the excavations are two-quarter temples, one built under Rameses II and one built under Panedjem I. These two temples have the essential architectural elements of a standard temple, namely the open court with central paved pathway, the colonnade and the sanctuary.

EL-SAGHIR, Mohamed

New Discoveries at the Avenue of the Sphinxes (the Great Processional Way of Thebes)

Since 1992, the SCA excavations at Luxor have focused on five different places along the avenue of the sphinxes leading from the temple of Amun at Karnak to the temple of Luxor for a distance of 2450m. By the end of the last season in June 1999, a total distance of 720m of the avenue had been completely cleared. The excavations carried out at these five places have demonstrated that the avenue links not only the two temples of Karnak and Luxor but also links all the temples of Thebes on the east bank of the Nile through different side branches extending from the main avenue to the different temples, such as the group of East Karnak temples; Mut precinct; Montu Temple. Also, it runs eastward to the riverside probably for connecting the temples located on the west bank of the Nile with that of Amun at Karnak. The work at the avenue of the sphinxes reveals great evidence about the role of the avenue in the festivals and processions of the gods through different

periods and sheds light on many defined functions and many architectural details.

SAIED, Ahmed Mohamed

Entstehung des Anubis-Kultes

Als Totengott und Schutzgott des abydenischen Königsfriedhofs ist der liegende Schakalgott Chontiamenti mit gesicherten Schriftform seines Namens in der Frühzeit (1. Dyn.) nachweisbar. Daneben erscheint der liegende Schakal als Gottheit in vielen Personenamen, Ortsnamen und Titeln. Obwohl der Lautwert des schakalförmigen Gottesnamen *inp.w* (Anubis) nicht vor der 6. Dyn. (Pepi I.) belegt ist, haben die meisten Ägyptologen (wie Kaplony u.a.) diesen frühzeitlichen, liegenden Schakal, der auf Denkmälern ohne Beischrift als *chntj imn.tjw* vorkommt, als *Jnpw*-Anubis gelesen. Außerdem erscheint bei den frühzeitlichen Totenpriestern der Titel "*Hry seshta*" in Verbindung mit den bekannten Darstellungen von Anubis als liegendem Schakal auf der Halle, und auf einem Siegel kommt der Ausdruck "*wt*" mit einem liegenden Schakal vor, der später mit Anubis als "*wt-inpw*" verbunden ist. Nach Kaplony weist dieser Ausdruck hier auf einen Gebäudenamen hin, wogegen J. Kahl ihn als einen Titel auffaßt. Wegen dieser fraglichen Lesung des frühzeitlichen, liegenden Schakals haben Helck und J. Kahl ihn als *inpw* (*chntj imn.tjw*) gelesen. Andererseits könnte man diesen liegenden Schakal als Chontiamenti (Anubis) oder nur Chontiamenti lesen, da der erste Name schon seit der Frühzeit belegt ist.

Weiterhin könnte man annehmen, daß die später wichtigen Aufgaben oder Eigenschaften des Anubis im Rahmen der Betreuung des Leichnams zuerst auf den Schakalgott Chontiamenti (als dem einzig liegenden Schakalgott in der Frühzeit) zurückgeht. Als nun dieser Gott mit Osiris zusammengebracht wurde, hat Anubis möglicherweise diese Aufgabe für sich selbst eingenommen? Tritt deshalb der Name des Anubis "*inpw*" zum gleichen Zeitpunkt auf, an dem die Verbindung von Osiris und Chontiamenti stattfand (also 5.-6. Dyn.)?

SAKR, Faiza

Bats in Ancient Egyptian Texts

An amulet, talisman or charm is a personal ornament which, because of its shape, the material from which it is made, or even just its colour, is believed to endow its wearer by magical means with certain powers or capabilities. Bats are rarely depicted in Egyptian art, although as a jewelry-amulet, they are more common. Their scarcity in art must surely not reflect their numbers in antiquities, but probably some inhibition on the part of the artists in portraying them. I will be discussing the presence of bats in Egyptian texts and antiquities.

SALEH, Fathy and Nicolas GRIMAL

Carte Archéologique de l'Égypte

Ce projet s'inscrit dans un programme d'inventaire des sites égyptiens, qui recouvre deux domaines complémentaires: les sites naturels et les sites culturels constituant le patrimoine de l'Égypte. Ce programme, piloté par une institution égyptienne créée à cet effet, le *National Center for Cultural and Natural Sites*, souhaite rassembler, le plus largement possible, les coopérations, nationales et internationales.

Cette présentation s'attache essentiellement à l'inventaire culturel appelé, par commodité et par référence aux entreprises analogues existant dans d'autres pays, *carte archéologique de l'Égypte*. Son objectif est d'exposer à l'occasion de la réunion de l'*Association Internationale des Égyptologues* au Caire les objectifs exacts de cet inventaire et de donner l'état d'avancement du projet, déjà nourri de coopérations internationales et pluridisciplinaires, poursuivies aussi bien dans le cadre de l'Unesco que du Conseil suprême des antiquités de l'Égypte.

Cette présentation sera l'occasion de montrer une maquette de projet, combinant cartographie et systèmes d'information informatisés. On fera également le point des participations déjà engagées et un appel à coopération sera lancé.

SALEH. Mohamed

The New Giza Museum

It is assumed that the old Cairo Museum is going to maintain its original chronological artistic display. This display will be kept as the symbol of the old tradition reflecting the beginning of museology in Egypt. The new Giza Museum, however, should be radically different from the previous one. It is a museum of the third millenium with modern visions and it must convey a direct message of the greatness of the culture of ancient Egypt. For this matter it is important for the exhibits to be organized in such a way that each individual visitor could not only receive a global impression besides the artistic value of each object, but also find in them what he is searching for. For example, the mask of Tutankhamun could be used for investigating the sources of gold, technology, jewelry, divinisation, kingship, etc; a model from Meketre can lead to daily life, housing, servants, economy, administration, food, etc.

Thus it would be possible to look at the exhibits in a number of different ways without obscuring the meaning of the collection as a whole. In such a way, the museum can be equally accessible to students, laymen, or specialists.

In order to select the route, the reception hall must include sufficient computers for visitors to select what they want. In addition, they could be presented with pre-suggested routes on various topics together with the

tickets. A catalogue of the museum will also be available. The visiting routes will cover objects from Prehistory to the fall of the Roman Empire, a period of more than 5000 years of ancient history.

SALEM, Nabila M

Restoration Methods of Papyri in the Egyptian Museum

Papyrus (*Cyperus papyrus*) played a very important role in human civilization. Ancient Egyptians used it in their daily life for various purposes, such as making ropes, sails, boats, matting, cloth and later making a material for writing like paper today. Papyrus was used for writing in Egypt from about 3000 BC until about the ninth century AD, the advent of paper. The Egyptian Museum in Cairo displays hundreds of papyrus manuscripts, written in hieratic, demotic, Coptic and Greek languages. They have suffered extremely from severe deterioration, due to the bad environmental conditions. The Conservation Research Center of the Supreme Council of Egyptian Antiquities started the first stage of a restoration project of Greek and pharaonic papyri in March 1997 with the cooperation of the universities of Bologna and Lecce (Italy). The aim of this project is the restoration and conservation of Greek and pharaonic papyri exhibited in the Egyptian Museum.

The Greek papyri are fragments found in the Batn Harit excavation in 20 March 1907. All of these fragments of papyri with S. R. (3729) were covered with dust, folded and crumpled. They were examined carefully, mechanically cleaned, dampened gently with distilled water and opened.

On the other hand pharaonic papyri generally were in a bad condition. Due to the high percent of humidity, some of them had been attacked by museum insect pests, several of which were found alive or dead in the frames. The insect specimens were collected for the purposes of identification, determination of the taxonomic position and selection of the most suitable methods of control. Four insect species were collected representing four genera, four families and three orders of museum insect pests, these are:

- 1-Attagenus gloriosae F (Dermestidae, Coleoptera).
- 2-Lasioderma serricorne F (Anobidae, Coleoptera).
- 3-Blattella germanica L (Blattellidae, Dictyoptera).
- 4-Thermobia aegyptiaca L (Lepismatidae, Thysanura).

The insect infections were mechanically and chemically controlled by different methods, relative to papyri, the frames and the place of displaying. Some recommendations for the restoration and conservation of the papyri are given.

SALES, José das Candeias

Les monnaies de l'époque ptolémaïque au Portugal

Au moment, où on aborde le thème de la préservation et de la protection des matériels qui ont survécu de l'ancienne Égypte, en mettant en lumière le Delta, le but principal de cette communication est de présenter aux participants du Congrès les monnaies frappées pendant l'époque ptolémaïque qui existent dans les musées portugais.

Il y a, en effet, au musée archéologique de Lisbonne et au musée anthropologique de Porto des monnaies en argent et en bronze frappées sous la domination des Lagides en Égypte, sous les règnes de Ptolémée III Evergète Ier, de Ptolémée VIII Evergète II et de Ptolémée IX Sôter II, qui sont méconnues des grands catalogues numismatiques.

Une petite collection de diapositives de ces monnaies illustrera le discours, en valorisant les éléments et les symboles des frappages ptolémaïques qui évoquent le rêve d'universalité des Ptolémées d'Alexandrie, du IIIe siècle au Ier siècle av. J.-C.

SAMI, Rasha Mahmoud

Amaunet and Mut on the Walls of Theban Temples to the End of the Ptolemaic Period

This research is devoted to casting some light on Amaunet and Mut, the two consorts of the god Amun-Ra. It focuses on the goddesses' origin, names, titles, iconography and importance in Egyptian religion and their associations with other goddesses. It aims to prove that Amaunet and Mut were two entirely different goddesses and that Amaunet was not just a form of Mut, as she had her own identity. The research also includes a study of the scenes of the two goddesses on the walls of the Theban temples from both the Ptolemaic and the pharaonic periods. This study will lead to a better understanding to their role in the ancient Egyptian religion.

SATZINGER, Helmut.

The Position of Egyptian among the Afroasiatic Languages

Egyptian is one of the languages and language families that constitute the Afroasiatic macrofamily. The situation of Egyptian is peculiar in several respects.

1) It is already attested in the third millennium BC, that is earlier than Akkadian, which is the oldest attested Semitic language. The Berber, Cushitic, Omotic and Chadic languages are known from modern times only.

2) Egyptian has been extinct for several centuries, and no closely related language has survived.

3) Egyptian/Coptic is a single language. Berber is usually regarded as one

language with a great dialectal variation. The Cushitic languages number about 30, the Omotic languages some 40-50, the Chadic languages at least 125 languages. The Semitic languages may be divided into four sub-groups. Typical Afroasiatic features in Egyptian are:

Three phonemic vocal qualities only: *a—i—u*. Emphatic consonants (!). Consonants are of prime importance for roots, esp/ verbal roots.

The modified precedes the modifier: verb-complements, noun-attribute, regens-rectum, preposition-complement. Prepositions, no postpositions. Basic word-order VSO. Noun: stem formation i.a. with *m-* (instrument, location, etc.); gender classes; cases (!).

Personal pronoun: distinction of gender in the second and third persons (singular only).

Verb: the Old Perfective, representing the Afroasiatic suffix conjugation.

Distinct features of Egyptian:

Noun: almost uniform formation of gender and number forms.

The Egyptian *pronoun conjugation* (called "suffix conjugation" in Egyptology).

The non-rhematic forms of the *pronoun conjugation*, viz. substantival and relative forms (comparable features exist in many Chadic and some Cushitic languages).

Rhematic constructions ('emphatic' construction and cleft sentence), a feature typical of many West African and some Western European languages.

EL-SAWY, Ahmed

A New Discovery in the Temple of Seti I at Abydos

The temple of Seti I at Abydos is one of the most important and complicated religious structures in Egypt. The family of Seti I made many additions, such as halls, inscriptions, and paintings, to the temple. Many of these additions can be attributed mostly to Seti's son, Ramses II, as well as his grandson, Merneptah. In recent years, many debates have centered on the specific chronology attributed to each addition. For example, which pharaoh built or inscribed what?

The expedition began the process of removing stone blocks that were situated between the staircase, which leads to the temple's ceiling, and the corridor that leads to the outer western portion of the temple facing the Osirion and near the library/archive. Further, the expedition excavated a small square (1 x 1.5 m) on the eastern end of the staircase by the western wall of the bark hall. Both the corridor and the bark hall were constructed at the same level, probably around the time of Seti I (1309-1291 BC). On the other hand, the foundation level of the northern wall of the library building was a little deeper (about 70 cm) and was not connected with the courses of the two walls mentioned before (the eastern and western walls). Therefore, the library building was constructed slightly after the time of Seti I, possibly at the end of the reign of Ramses II or during the early part of Merneptah's reign.

This article should shed light on the debate surrounding the additions, inscriptions, and paintings.

SAYED, Abdel Monem A.H.

Problems of the Archaeology of the Red Sea and the South-East Delta

This paper considers: A) the location of Punt, and B) the Nile-Red Sea canal.

A. *The Location Of Punt*: In my opinion the land of Punt was confined to the African coast of the Red Sea.

There were three Egyptian terms incorporating the word "Punt":

1. The term "Punt" which was given, from the Old Kingdom onwards, to the African coast of the Red Sea directly south of Egypt from which the ancient Egyptians obtained mainly incense. It became a general term for the whole African coast of the Red Sea used throughout the pharaonic period.

2. The specific term *bia Punt* (i.e. 'the mine of Punt') which was given from the Old Kingdom also to the Nilotic regions located to the east of the Nile in northern Sudan (inscription of Harkhuf) and extending to the Sudanese coast (inscriptions found at the port of Wadi Gawasis the ancient Saww.)

3. Another specific term is "The Frankincense Terraces of Punt" which was given to the north-eastern coast of Somaliland from which the Egyptians obtained the frankincense trees to be transplanted in Egypt (inscriptions of the temple of Hatshepsut, attested in some respects by some Classical writers.)

B. *Problem of the Nile-Red Sea Canal*: In my opinion, this canal did not exist during Pharaonic times, and its actual digging took place during the time of Darius I (521-486 BC), the Persian king. The evidence is:

1. The inscription, found on the port discovered at Wadi Gawasis on the Red Sea shore attested the non-existence of the canal during the 1st half of the 12th dynasty.

2. Organic material found with the discovered monuments was dated, via calibrated radio-carbon dating, to the time of the New Kingdom. This result is attested by scenes in certain Theban tombs. One in the tomb no. 143 (reign of Amenophis II) which represents the unloading of the Puntite merchandise in the Egyptian port and the return march through the desert. Another scene is in the tomb of Amenmose (reign of Thutmose IV) where asses are shown laden with the Puntite merchandise.

3. From the time of Ramses III there is an inscription (Pap. Harris) recording a return voyage from Punt by land through the Eastern Desert to Coptos whence the merchandise was shipped northwards to Pi-Ramesses. The legendary story of the classical writers of the canal being dug by a king whom they called "Sesostris" is thus fabulous; it may have been devised by the Egyptians during the Persian dominion about their native king as a kind of national propaganda to eclipse the achievement of the Persian king as in the Red Sea. Nevertheless, if "Sesostris" is identified with Ramses II, the story

may have roots in an achievement of Ramses II in the eastern Delta where he dug a canal from the Nile to irrigate the fields of the god Atum around the town of "Theku" (Tell el-Maskhuta). This canal is called *Pwhr*, a name which may be the origin of the name "Piru" which occurs on one of the cuneiform tablets erected by Darius I to commemorate the digging of the canal.

SCHADEN, Otto J.

The Amenmesse Project: KV-10

The KV-10 project was initiated late in 1992 by the University of Arizona, but since 1995 has been conducted under the aegis of the Institute for Egyptian Art and Archaeology at the University of Memphis. The aims include a complete clearance and recording, plus essential conservation and restorations. Each year since 1993 there has been an excavation season and a few study seasons.

The tomb was originally hewn and decorated for King Amenmesse (Late Dynasty XIX), down to and including the pillared hall. Beyond the hall are two corridors (the first with a vaulted ceiling) which are undecorated. The tomb does not extend farther and thus lacks the customary burial chamber complex (in brief, it was never completed). Much of the original decoration for Amenmesse is gone, and most of the later redecoration for a King's Mother Takhat (in the well chamber) and a Queen Baketwerel (pillared hall) are now also lost. The exact date(s) and associations of these two royal ladies are still unresolved. No evidence of burials for Amenmesse and Baketwerel have come to light, but fragments of a granite sarcophagus lid (usurped from a Queen Anketemheb) and canopic fragments for Takhat suggest that she alone may have been interred in KV-10.

Most of the tomb has been cleared. Restoration work has included many minor repairs plus consolidation of two of the pillars in the hall. Plans for the 2000 season include essential conservation and restoration work, leaving the descent in the pillared hall as the last major area to be excavated inside the tomb.

SEIDLMAYER, Stephan J.

Current Work on the *Wörterbuch*

Since 1993, the Ancient Egyptian Dictionary project is housed at the Berlin-Brandenburg Academy of Sciences. Its aim is to produce a database of Ancient Egyptian texts, covering all of the essential material, as a tool for philological, lexicographical and linguistic research. A lexical database attached to this corpus provides for requests for detailed lexicographical information from the texts stored in the data base and will fulfil the role of a virtual dictionary of the Egyptian language. The different components of this information system will be published in due course on the Internet. Software tools and an explanatory manual will be prepared to guide researchers who

wish to encode texts for inclusion into the database of Egyptian texts, thus providing the basis for an international co-operation in assembling the corpus of texts. The archives of the *Wörterbuch der ägyptischen Sprache* are still extremely valuable tools for Egyptological research. Thanks to substantial financial support by the Deutsche Forschungsgemeinschaft, the archive of lexical slips prepared for the *Wörterbuch*, 1.5 million slips all told, could be digitalized and indexed according to the Belegstellen of the *Wörterbuch*. Since spring 1999, a first substantial and constantly growing part of this material is available on the Internet; the entire archive should become available in the course of the year 2001. It is planned to publish the other components of the archive as well, namely the archive of copies of texts and the archive of paper squeezes.

This paper will provide information on the current state of the work and outline most recent developments.

SEIDLMAYER, Stephan J.

New Rock Inscriptions on Elephantine Island

During the last few years, the rock-inscriptions on Elephantine island were re-studied. In the course of this work, a considerable number of new inscriptions was discovered. In other cases, important additions and corrections could be made to previously published texts. Most of the inscriptions on Elephantine date from the New Kingdom; however, a number of interesting texts from the Old and Middle Kingdoms were studied as well. In recording the inscriptions, particular attention was paid to the archaeological features of the material, in addition to the basic task of ascertaining the reading of the texts. Further, the topographical position of the texts and their relationship to the other monuments on Elephantine, especially the great sanctuaries, was taken into consideration. These data often proved vital to an understanding of the significance of the texts, of their clustering at specific places, and of the prosopographical composition of the different groups of inscriptions. The paper will present an overview of this work and provide comments on some of the most interesting texts and archaeological situations.

EL-SENUSSI Ashraf

Middle Kingdom Private Tombs at Hawara

In 1974, the Inspectorate of the Fayoum discovered 14 burial shafts dating to the Middle Kingdom, 500 m east of the pyramid of Amenemhat III. Renewed excavations in 1982 revealed another 7 shafts also of Middle Kingdom date. Ten of these shafts were completely plundered, and most of the others had been robbed. Only two of these tombs were intact and contained a full range of funerary equipment including pottery, canopic jars, stone vessels, jewellery, wooden tools, models and other items. New Kingdom reuse is indicated by the presence of well-dated imported pottery and stone vessels in

the shafts. The owners of some of the shafts are identified by names written on the funerary equipment. The canopic jars belonged to *A-wsr-shmt*. A broken wooden coffin was reported to bear the name of *Ht-m-ht*, and a loose block found in another shaft had *Sbk-htp* written on it. Another shaft, otherwise empty, contained a poorly preserved false door belonging to *Anh.ty-hry*.

This paper will discuss and illustrate the wide range of objects found in these unpublished tombs, their dates and connections, and the identity of their owners.

SHARKAWI, Fouad

Egypt and the Egyptians in Greek Tragedy

Egypt and the Egyptians are distinguishably mentioned in the myth of Io, Danaus and Helen, which are considered the most popular Greek myths. However, the artistic treatment of these myths in Greek Drama bears different implications that need to be considered. Egyptians represent one of the two conflicting powers in one of Aeschylus' tragedies, while they are implicitly depicted in another. Sophocles, too, offers some figurative images that reflect his viewpoint of Egypt and the Egyptians. Yet Euripides, who lived in the age of enlightened and unprejudiced thinking, presents a different depiction of Egypt and the Egyptians.

In this paper, we may come to the conclusion that the Greek view of the Egyptians was variable during the fifth century BC, until it reached its climax in the age of Euripides. One could say that *Helen of Euripides*, which was presented on the Greek stage before Euripides' stay in Macedonia, promises the cultural integration between Egypt and Greece in the age of Alexander the Macedonian.

SHATA, Mohammed A

Damietta as a Gateway to Egypt in Ancient and Modern Times

Damietta is located two miles upstream of one of the main mouths of the Nile east of Alexandria. Ancient Damietta had a harbour used as the main North Gate of Egypt. We know from the Palermo Stone that Sneferu of Dynasty IV imported forty loads of timber from Syria. This importation could only have involved an ocean voyage and transported upriver to Memphis of which the Damietta branch of the Nile river could have been used through the delta. During Dynasty XXVI the Egyptian King Psamtek (664-610BC) employed Greek mercenaries to assist him in Egypt who were then settled at Daphne in the Delta on the Pelusiac branch. Under Amasis (570-526 BC), Naucratis became the most important commercial town of Egypt. Most of the coastal sites are now submerged under water, mud or soil. Lake Manzala has two

large virgin sites that have never been excavated. Damietta has another ten archaeological hills. EOA excavations at Tell el-Berashia have revealed an oil press, water drains made from bricks and a large settlement but the excavations were never completed. The city was surrounded by a triple wall protected by many large brick towers. Submerged items found proved that the Greeks, Romans and Copts had been to Damietta and the city had been a target for the crusaders during Mamluk and Ottoman periods.

SHAW, Ian

New Survey and Excavation at Gebel et-Asr in Lower Nubia (the Chephren Diorite Quarries)

This paper presents the results of two seasons of survey and excavation at the Gebel el-Asr gneiss quarrying region, which covers an area of about 120 km to the south of Wadi Tushka and to the west of Lake Nasser. It consists of a number of individual quarrying areas dating to various periods from the Early Dynastic Period to the Middle Kingdom: Quartz Ridge, Khufu Stele Quarry, Chisel Quarry, Loading Ramp Quarry and Stele Ridge. The first four locations are all gneiss quarries, whereas the fifth, Stele Ridge, was evidently a set of amethyst mines exploited in the Middle Kingdom (and, judging from the survival of one amphora, briefly visited during the Roman Period).

The paper will discuss the region as a whole as a case-study for the nature of remote stone quarrying sites in the Old and Middle Kingdoms. New information obtained from the site in 1997 and 1999 includes geological survey data, the study of 23 large 12th dynasty storage jars, and the excavation of two loading ramps.

SHEEHAN, Peter

Brief Encounters with the Ancient Landscape: Urban Archaeology in Modern Cairo

With special reference to the EAP/ARCE programme of archaeological monitoring of wastewater projects in Old Cairo

Pressures of space, time and population in Cairo, as well as the methods of followed by infrastructure and construction projects have combined to limit the scope of archaeological investigation in the highly significant but still largely unexplored area covered by the modern city.

This paper explores possible methods of combining archaeological and geotechnical information during these projects, and the creation through this process of an urban archaeological deposit map/model which can be used to mitigate the destructive impact of modern progress on the ancient landscape. It is argued that with this information the conservation in situ of urban archaeological deposits as a valuable and finite resource and a research tool for the future can be achieved.

Particular attention will be given to the area of old Cairo where these kind of observations using data from wastewater infrastructure projects have started to indicate the wealth of archaeological and environmental information of all periods buried deep beneath the modern city.

SHEIKHOESLAMI, Cynthia May

The Cosmic King and Ideal Time in the Ramesseum

The astronomical ceiling of the second hypostyle hall in the Ramesseum has been known to Egyptologists since the time of Champollion, yet it has never been properly studied as a whole in context. It was published in facsimile by the Epigraphic Survey of the University of Chicago in *Medinet Habu VI*, Neugebauer and Parker included it in their synoptic study of *Egyptian Astronomical Texts*, and Helck translated the border text in *Die Ritualdarstellungen im Ramesseum*. This paper will argue that, perhaps inspired in part by the beginning of a new Sothic cycle approximately coinciding with the birth of Ramesses II, the ceiling is part of a decorative program designed to express concepts of kingship in ideal—and hence eternal—terms in one of the pharaoh's "houses of millions of years."

SHERIF ALI, Mohamed

Die Inhalte beider Seiten des Papyrus Kairo C.G. 58074

Das Rektio des Papyrus Kairo C.G. 58074 enthält eine Rechnung, die uns mit ihren Materialien an andere Rechnungslisten erinnert, wie z.B. Papyrus Boulaq 11, während auf dem Verso ein Bauplan steht, die Skizze eines Gebäudes, die eine Folge von Räumen darstellt.

Die Untersuchung versucht, die Inhalte und auch die Beziehung zwischen den beiden Seiten zu erklären.

SHERKOVA, Tatjana A.

Three Baboons in a Boat: The Excavation of the Sanctuary at Tell Ibrahim Awad in the Eastern Delta

In the course of excavations of the sanctuary at Tell Ibrahim Awad, in a deposit of votive objects, a unique faience model of a small boat with three baboons sitting in it belonging to the Early Dynastic Period was found. This object does not have close analogies even among the artefacts from Abydos, Hierakonpolis and Elephantine, the sites where numerous objects of small plastic art comparable to those of Tell Ibrahim Awad were discovered.

Of prime importance is the question of which god's cult was celebrated in this temple.

Can we assume that the numerous representations of baboons found in

various contexts in the temple point to Thoth portrayed as a baboon already in the Early Dynastic Period, or would the three apes in a barque indicate a connection with the solar baboons?

The author who has excavated during five campaigns at Tell Ibrahim Awad will discuss the meaning of this object and the many votive figures of baboons found on the site.

EL-SHIMY, Mohamed

Preparation of Perfumed Oils in Egypt: Pharaonic Evidence in Light of Contemporary Practice

Perfumed oils and ointments were an integral part of numerous rituals in pharaonic Egypt, yet ancient texts and representations provide surprisingly little evidence of the methods by which they were prepared. Labels from Nagada and Abydos show that heating or cooking was part of the process from the earliest times. Contemporary practice in the preparation of holy oils in the Coptic church suggests not only that cooking was the most important part of the process, but also that it was a very time-consuming operation requiring the skill of a master-perfumer, perhaps working in a special temple laboratory, such as the ones known at Dendara, Edfu, and Kom Ombo in the Graeco-Roman period. The possible existence of such laboratories in New Kingdom Theban temples will be discussed.

SHORTLAND, Andrew

The Study of Colorants in the Investigation of Early Glass

While occasional beads of glass are known from the early second millennium BC, the first regular production of glass in a controlled way occurred in Mesopotamia and Egypt in the middle of the second millennium BC. The commonest colorant for ancient vitreous materials was copper, but at about the same time as the invention of glass, three new colorants also started to be used, lead antimonate for an opaque yellow, calcium antimonate for an opaque white and cobalt for a deep blue. Some of the earliest vessels made of glass contain one or more of these new colorants and this suggests that the discovery of glass and the colorants may be linked. Previous work on cobalt blue glasses has shown that it is probable that the cobalt colorant was derived from the cobalt-bearing alums of the Kharga Oasis in the Western Desert of Egypt. Ongoing work makes use of archaeological and scientific techniques to investigate the raw material sources and production processes for lead antimonate and calcium antimonate. The results obtained make a contribution to the history of early glass technology and, more importantly, they add to our knowledge of the origins of glass production. In turn, this contributes to our understanding of the processes of technological invention (i.e., how new technologies were first discovered and why they were adopted) and technological transfer across the Near East.

SIMPSON, Fiona

Evidence for Late Bronze Age Libyan Culture in the Western Desert

In the reign of Ramesses II (c. 1279–1214 BC) the ancient Egyptians constructed a chain of fortresses westward from the Nile Delta along the Mediterranean coast and into Marmarica. These fortresses were intended to control and monitor the movement of 'Libyan' peoples out of the Western Desert and into Egypt in the search for more land and resources. Although Egyptian sources mention these 'Libyan' peoples as the groups of *Meshwesh*, *Libu*, *Tjehenu* and *Tjemeh*, very little is known about their material culture since they were primarily nomadic and their sites are hard to locate.

Since 1993 the University of Liverpool has been excavating one of these New Kingdom fortresses at Zawiyet Umm el-Rakham, so far the most westerly to be located, situated approximately 150 miles west of Alexandria on the Marmarican coast in the Western Desert. As a member of this team I am researching the possibility that particular features and artefacts excavated at this site are in fact non-Egyptian and instead are the material remains of indigenous Libyan peoples, groups who either had direct contact with the Egyptians occupying the fortress or who used or occupied the site shortly after its abandonment by the Egyptians.

SIST, Loredana

A New Exhibition of a Roman Collection of Egyptian Antiquities

Part of the Egyptian Collection of the Roman National Museum is now visible in a new exhibition space. The Roman National Museum has acquired and restored the ancient Palazzo Altemps and has recreated a suitable place for huge statuary pieces belonging to the Roman and Egyptian civilizations.

SMITH, Craig B.

Site Management at Archaeological Monuments

Archaeologists face a dilemma with important historical monuments such as the Giza pyramids and their associated facilities. The challenge is to make these vital facilities accessible to the public but at the same time to not cause irreparable damage. As the technical tools available to archaeologists continue to evolve, technical advances such as remote sensing enable new information to be garnered from old, previously explored sites.

Proper site management offers several advantages. First, by providing for public access, support for archaeological research work is encouraged. An informed public invariably assists in the expansion of funding for archaeological research. Second, site management provides a means for

protecting the site, structures and artefacts from damage by visitors. Finally, site management can enhance the ability of the archaeologist to work the site in an optimum manner.

There are several elements that need to be considered in a site management plan. These are:

- Infrastructure
- Traffic Control
- Access Management

Infrastructure includes roads, parking, drainage, sewage treatment and water supply, and other utilities. Proper provision of infrastructure is essential to support the work of researchers and to protect the site. Traffic control (both vehicle and pedestrian) is necessary to avoid interference with researchers and their work and to avoid damage by environmental pollution, vibration or other structural loads. Access management is the technique of providing limited access and viewing of discoveries, as well as work in progress.

The paper concludes with several examples of site management at working archaeological sites.

SNAPE, Steven

Apocalypse Then? Neb-Re and his Fortress at Zawiyet Umm el-Rakham

Fieldwork carried on since 1994 by the University of Liverpool at the site of Zawiyet Umm el-Rakham has revealed a major fortress-town of the New Kingdom. Zawiyet Umm el-Rakham is the best-known, and perhaps the largest unit in the fortification system created by Ramesses II on Egypt's Mediterranean coast. The Liverpool team has investigated a number of major installations within the fortress, including the temple, magazines, main gate, dwelling area and a later squatter settlement. All have provided important new information on the operation of a major Ramesside military and commercial settlement in a little-known part of Egypt's New Kingdom empire.

This paper will concentrate on the practical military function of the fortress, particularly the question of how the substantial garrison was provisioned. It will also describe the evidence from both the Liverpool and Habachi excavations at Zawiyet Umm el-Rakham relating to the way in which Neb-Re, the known commandant of the fortress, may have regarded his position as semi-autonomous

SNAPE, Steven

Trade in a time of Transition: Evidence from the Tomb of Ramesses III

The end of the Late Bronze Age, as it is represented in the Egyptian sources, is best known from evidence dating to the reign of Ramesses III, particularly

the Libyan/Sea Peoples war scenes at Medinet Habu. Here the impression is given of external turmoil in contrast to the maintenance of the stability of Egypt itself by Ramesses III. This material has often been used to support the view that the end of the Late Bronze Age was accompanied by a political seismic shift in the Near East which included the disruption of existing international exchange mechanisms.

However, other material from the reign of that king suggests that the 'crisis' at the end of the Late Bronze Age did not necessarily mean the cessation of foreign imports during and after the reign of Ramesses III. This paper will examine this material, especially relevant scenes from KV11, which were recorded and studied during a recent season of field work by Liverpool University in the Valley of the Kings.

SOLKINE, Victor V.

The Sculptural Representation of the Prince Khaemwaset in Moscow

In the collection of the Department of The Ancient Orient of the Pushkin State Museum of Fine Arts, there is a sculptural young man's head made of quartzite (Inv. N. I, I a 6670). It is 10 cm high, the diameter measuring 40cm. which can be dated to the first half of the 19th Dynasty.

The author will demonstrate that the person represented is Khaemwaset, a son of Ramesses II, and that the object served as the lid of a special type of vessel. There is a similar object in the Brooklyn Museum (87.78) identified as an exceptional type of cult vessel.

A series of reliefs from the temple of Seti I in Abydos illustrates the ceremonies of purifying the king using vessels which had lids of the same type. It is most likely that the head of Khaemwaset from Moscow was the lid of such a vessel used during the ceremony of the New Year's celebration.

SOUROUZIAN, Hourig

Conservation of Statuary: Methods of Preservation by the Example of the Monumental Dyad from the Reign of Horemheb

The study and conservation of plastic art is indispensable more than ever now and more than the theoretic study of art history. For centuries, works of Egyptian art have been destroyed or dismantled, quarried to serve for reuse or building material in constructions. The hard stones have been used for mortars and presses, the limestone burned to obtain chalk, the sandstone pulverized to produce gunpowder etc. Obelisks, columns, statues and reliefs which were once integral part of temples are now fragmented and dispersed without always leaving track of their original location. Countless heads and

busts have been barbarously cut from statues by agents of dealers and were sold unscrupulously to collectors and amateurs of art. The result is that the museums are full of lapidary antiquities but prefer to display heads and busts without always tracing them back to the original monument, while lapidary sites, temple magazines, and museums' storerooms are full of heaps of statue fragments waiting to be identified, documented, studied and recorded. Now that weathering by the constantly increasing humidity and pollution threatens all exposed monuments, it is time to preserve these works of art not only by full documentation but also with modern methods of conservation. Among other examples of joined statues, the author will show how even very large fragments of colossal statuary may disappear or be declared lost, and will expose the method of study, identification, re-assembly and conservation of a monumental dyad with hundreds of unidentified or unrecorded fragments, dispersed at Karnak and in Cairo. From this dyad, representing Amen and Mut, only the head of the goddess found at Karnak in 1870 by Mariette was on display in the Egyptian Museum of Cairo. The remaining fragments, discovered over 130 years were either stored independently in different places or still buried under the débris of temple destruction.

STADELMANN, Rainer

Excavations at Dahshur

The German Institute has been excavating and studying since 1982 the royal cemeteries around the Northern Pyramid of Sneferu at Dahshur.

The main results of these excavations are:

- a better understanding of the development of the pyramid precinct in the Old Kingdom
- the relation between the pyramid temple and the sequence of the funerary apartments in the pyramid
- the evolution of cult and burial arrangements in the pyramid temple and in the pyramid
- new evidence for the construction of the pyramid
- new evidence for the length of the reign of Sneferu according to the inscriptions on the foundation stone and the backing stones of the Northern Pyramid

STADELMANN, Rainer

The Great Sphinx of Giza—A Creation of Khufu/Cheops

There is no evidence in the inscriptions of the so-called Dream Stela of Thutmosis IV that the Great Sphinx of Giza was created by Khafra. On the contrary the older stela of Amenophis II mentions both kings, Khufu and Khafra. The archaeological evidence points clearly to Khufu. The Sphinx is situated within the quarries of Khufu. The causeway of Khafra does not run

straight to the east and his valley temple is not situated in the axis of his pyramid complex but to the south. This means that Khafra had to take account of something earlier, something very important, that already stood there. Regarding the situation, this important object can only have been the Sphinx. Thus the large rectangular ditch in the center of which the Sphinx was hewn out surely belongs to the quarries of Khufu.

Further evidence for the assignment of the Great Sphinx to Khufu can be found in an iconographic and stylistic comparison between the features of Khufu and Khafra. The general form of the square face, the fully pleated nemes-cloth without band, the large ears, the wide open eyes, the broad chin and the fact that the statue definitely had no beard in the Old Kingdom are obvious and positive proofs for the assignment of the Great Sphinx to Khufu.

STANWICK, Paul

Royal Sculpture of the Ptolemies

This paper re-evaluates the development of Egyptian-style royal sculpture under Ptolemies VIII-X, who were known as Physkons ("fat men"). Using evidence of portrait types from coins and clay sealings, a series of Egyptian statues are newly attributed to the Physkons, including many previously placed in other parts of the Ptolemaic Period. Egyptian royal images of this time show a remarkably successful blending of Egyptian and Greek traditions in terms of the conception of portraits, use of attributes, scale, material, and pose. As such, royal statues of the second half of the second century and early first century B.C. represent a high point in the development of sculptures wearing the traditional nemes, but having Greek hair on the forehead.

STERNBERG-EL HOTABI, Heike

Politische und sozio-ökonomische Strukturen im perserzeitlichen Ägypten

Die Eroberung Ägyptens durch die Perser im Jahre 525 v. Chr. und die folgende, 125 Jahre währende Fremdherrschaft durch die Perser bewirkte im Lande einschneidende Veränderungen. Im Vortrag sollen diese tiefgreifenden Veränderungen der ägyptischen Gesellschaft in der Perserzeit unter vier Aspekten aufgezeigt werden: unter dem ökonomischen Aspekt, der die Tribute und Landverteilungen, den Abzug der Fachkräfte nach Persien, die Stagnation der künstlerischen Produktion in Ägypten und die Rekrutierung der ägyptischen Bevölkerung zum Bau des Darius-Kanals beinhaltet, unter dem verwaltungssoziologischen Aspekt, dem religionspolitischen Aspekt sowie dem politischen Aspekt, der die Aufstände unter Darius und seinen Nachfolgern behandelt. Im Zentrum wird die Regierungszeit Darius I. stehen, von der ein Bild entworfen wird, das sich in Einzelaspekten von der communis opinio abhebt.

SUGI, Akiko

The Cycle of 'Life' in the Amarna Period: An Aspect of the Iconographical Study of the Ankh

The ankh-sign, symbol of life, was one of the commonest elements in Egyptian iconography. The notion of 'giving life' into the terrestrial world is important in relation to all gods, but is developed in special ways for the sun-god. It is particularly strongly expressed in the Amarna period, when Egyptian theological and iconographical expressions broke from the traditional way and provided a new foundation for the further development of later New Kingdom iconography.

In the theology of the sole god Aten, the creation of life, its distribution, and its maintenance depended on his solar cycle. During his journey of a day in the form of the Disk, the gift of 'life' was expressed in his emanating light, as well as his giving air/breath and water.

This paper will examine the iconographic interrelationship between pictorial image and textual expression in this period to investigate Egyptian thought about 'life', and it will present how these life-giving elements were operated to determine the cycle of life between Aten and Akhenaten and mankind.

SULLIVAN, Richard

Proto-surgery in Ancient Egypt

Evidence from extant medical papyri, paleopathology and artefacts suggest that proto-surgery was practised in ancient Egypt (the prefix 'proto' designates an original or early form). The Edwin Smith and Ebers papyri both indicate that proto-surgical practices were known and practised. Furthermore a range of diseases and conditions that would have required some form of surgical intervention are known.

However, unlike the bronze surgical instruments found in chamber tomb K of the Palamidi-Pronoia cemetery, Nauplion (dated to the Late Helladic IIB period) no proto-surgical instruments have ever been found in a medical context in ancient Egypt. Depictions of such instruments are, though, known both from Graeco-Roman (Kom Ombo, 2nd century) and Dynastic sources (circumcision relief of Ankh-ma-hor, 6th Dynasty, Saqqara).

To ascertain whether proto-surgical instruments have been recovered, we have re-examined a range of recovered artefacts from UK collections variously ascribed medical and non-medical uses. By collating various parameters (e.g. provenance, shape, composition etc.) we have carried out intra-group and cross-sectional comparisons to try and establish whether there is a reasonable probability that any of these artefacts are proto-surgical instruments. We have preliminary evidence that some instruments may, on our analysis, have been used to perform procedures that we would associate

with proto-surgical practice. However, other instruments previously ascribed such roles are unlikely, based on our criteria, to have been used medically.

SZAFRANSKI, Zbigniew E.

Upper Terrace of the Temple of Hatshepsut at Deir el-Bahari: Recent Results of Restoration Work

During the previous seasons of archaeological, restoration, and conservation activity of a joint Polish-Egyptian expedition, work has focused on the Upper Terrace. Restoration of the Upper Portico was conducted along with the reconstruction of several monumental statues of the queen, set up in line with the facade. A reconstruction of the eastern and western ("wall with niches") walls and the upper bands of the decoration of the southern and northern walls was carried out in the Upper Courtyard. The series of scenes representing the "Beautiful Feast of the Valley" and "Beautiful Feast of Opet" have brought new evidence to our knowledge of these ceremonies at the beginning of the 18th dynasty. In agreement with approved principles of reconstruction, the surface of the new parts of plaster was recessed with respect to the original. Research revealed the existence of extra architrave sockets in the walls. A new arrangement of the architraves and column rows was undoubtedly of key importance in the mortuary temple.

The opening of the Upper Courtyard of the *Djeser-Djeseru* temple for the public is planned in the beginning of April 2000.

Interesting results have been obtained from studies on the construction stages of the Main Sanctuary of Amun. Many original blocks were used in restoration while the missing sections were reconstructed with new limestone. Blocks of the Ptolemaic repairs and rebuilding were removed, treated and replaced in position. Layers of dirt and soot were removed by mechanical and chemical means. Two Royal Mortuary Chapels (those of Hatshepsut and Tuthmosis I) and the Re-Horakhty Complex were the subjects of Egyptological and architectonic studies.

SZYMANSKA, Hanna

Polish-Egyptian Excavations at Tell Atrib (Benha) (1998-1999)

The Polish-Egyptian excavations at Tell Atrib (Benha) have been carried out since 1986 by an expedition from the Polish Center of Archaeology of Warsaw University, initially under the direction of Prof Dr. Karol Mysliwiec and now (since 1998) the present author. They have brought to light an urban

district of the ancient town of Athribis dating to the Ptolemaic and Graeco-Roman periods. The character of this district is determined by two categories of finds: pottery kilns of the late 3rd century BC and baths built in the reign of Ptolemy VI. The 3rd-century BC contexts are of particular significance in this area as they are dated by numerous finds of coins and stamped handles of imported amphoras.

The results of investigations based on extensive material, especially terracottas, indicate that this area had been settled by the first Macedonian settlers to arrive in the region, who subsequently underwent a steady and growing Egyptianization under the influence of the local culture. Explorations conducted in the past two years, thanks to a clear stratigraphy, permitted subsequent phases from the Ptolemaic period to be traced.

But the biggest success of the recent seasons was reaching the lowest lying levels which are completely devoid of any kind of monetary finds and are characterized by an assemblage including a completely different kind of pottery and primitive terracotta production quite different from that which was produced in the later Ptolemaic workshops. The material points to the second half of the 4th century BC, that is, a period preceding Ptolemaic rule in Egypt, as a possible date for these layers.

TAKÁCS, Gábor

An Etymological Dictionary of Egyptian. Volume 1: Phonological Introduction

This is the introductory volume to the first dictionary on the etymological relations between ancient Egyptian and other Afro-Asian languages. Gábor Takács' new multi-volume Etymological Dictionary of Egyptian (now to appear at regular intervals of about 12-18 months) will be a hallmark in Egyptian and Afro-Asiatic linguistics. The amount of material offered, the extensive treatment of scholarly discussions on each item, and the insights into the connections of Egyptian with its related Afro-Asiatic languages, including many new lexical parallels, will make it an indispensable tool for comparative and interpretative purposes and the unchallenged starting point for every linguist in the field. Volume 1 can rightly be called the key to the work as it not only provides the users with a comprehensive analysis of the Afro-Asiatic background of the Egyptian consonant system, but also offers a critical appraisal of linguistic theories on Egyptian historical phonology, the problems surrounding the origins of the Egyptian language, and an extensive bibliography to the dictionary volumes to appear.

TAKAMIYA, Izumi H.

Prestige Goods and Status Symbols in the Naqada Period Cemeteries of Predynastic Egypt

Previous studies of the Naqada culture have resulted in a general image of a fairly complex and hierarchical society in which the status of individuals tended to be reflected in mortuary practices, such as funerary installations and/or grave goods. Scholars have also suggested that the grave goods may have included 'badges of status', prestige goods such as ivory tags, mace-heads, wavy-handled pottery vessels, and exotic materials. However, there has not yet been sufficient study devoted to local variations, chronological change or the functions of such objects within society.

In this presentation, the so-called 'prestige goods' and/or 'status symbols' are identified and studied on the basis of their contexts in mortuary practice, as well as their general 'value' measured in terms of costs of materials and labour. They are then analysed in terms of their symbolic meanings, local differences and chronological variations. The results indicate first that there were several chronological changes in prestige goods and/or status symbols, and secondly, that some of these were restricted to certain regions while others were broadly used in Naqada communities throughout the Egyptian section of the Nile valley. The results may reflect the social organisation of the Naqada culture, if the materials were distributed according to certain symbolic systems shared by the various communities.

TALLET, Pierre

Nouvelles étiquettes de jarres de Deir al-Medina

Au Nouvel Empire, un nombre considérable de récipients contenant des produits aussi variés que le vin, la bière, le miel, la graisse animale ou l'encens ont été étiquetés au moyen d'une inscription hiératique permettant d'identifier leur contenu.

La série la plus intéressante de ce type de documents, tant par le nombre des inscriptions que par la variété des formules employées, est sans doute celle qui provient des fouilles menées à Deir al-Medina depuis le début du xxe siècle. Un échantillon représentatif de 500 étiquettes appartenant à ce lot documentaire a déjà été publié, mais un ensemble d'à peu près 2 000 autres documents est resté à ce jour inédit dans les magasins de l'IFAO.

Le propos de cette communication est de présenter brièvement les différents intérêts de cette documentation, en cours d'étude, tant sur le plan de la chronologie égyptienne que sur celui de l'histoire des institutions et de l'économie du pays aux XVIIIe-XXe dynasties.

TAWFIK, Tarek S.

The Extent of the New Kingdom Cemetery in the Memphite Necropolis

Within the last three decades excavations have revealed a vast New Kingdom cemetery in the Memphite Necropolis, extending from Abusir in the north to northern Dahshur in the south. Over 70 tombs have been discovered and the presence of many more is indicated by decorated blocks scattered in museums all over the world. Until now ongoing excavations can only be seen as trial pits revealing small sections of a vast cemetery of the nobles of the New Kingdom at the Memphite Necropolis, a fact which emphasizes the importance of Memphis at that period and gives rise again to the question of its status in the New Kingdom. Tombs are attested from the time of Amenophis III to Ramses IV, a large number of these tombs dating from the reign of King Ramses II.

No pattern has been established yet of how the tombs are distributed in the necropolis. It can be noticed that some areas were very popular, such as the vicinity of the Teti Pyramid and the area south of the causeway of the Unas Pyramid, whereas other areas were hardly used. There is reason to believe that there are scores of tombs especially from the time of Ramses III still waiting to be excavated in the necropolis. The mere fact that the New Kingdom cemetery extended from Abusir to Dahshur shows how big this cemetery is, and that it can be speculated that it might very well match if not exceed the number of tombs of the nobles of the New Kingdom at Thebes.

TEFNIN, Roland

Premières recherches dans les chapelles de Sennefer (TT 96A) et d'Amenemopet (TT 29)

Dès 1994, le Séminaire d'Archéologie égyptienne de l'Université Libre de Bruxelles (dir.: Prof R. Tefnin) a souhaité participer plus étroitement au grand mouvement d'étude scientifique, de publication et de restauration des tombes thébaines qui se développe aujourd'hui largement dans le monde de l'Égyptologie, et spécialement en Allemagne, en Grande-Bretagne et en France. Un Colloque international—rehaussé de la présence de M. Mohammed es-Saghir—avait été organisé cette année-là, suivi par la publication des Actes sous le titre *La peinture égyptienne ancienne, un monde de signes à préserver* (Bruxelles, Fere, 1997, *Monumenta Aegyptiaca* VII). Un pas supplémentaire vient d'être franchi qui traduit notre volonté de prendre une part active au sauvetage et à la mise en valeur des précieuses tombes thébaines, puisque le Conseil Suprême des Antiquités de l'Égypte a accepté d'attribuer au Séminaire d'Archéologie égyptienne de l'ULB la concession, pour étude et restauration, de deux chapelles funéraires de Cheikh Abd el-Gournah. L'une d'elles (TT 96A), bien connue par son caveau dit "aux vignes" (TT 96B), est celle du maire de Thèbes, Sennefer. La

seconde, voisine, appartient au frère (ou cousin?) de ce Sennefer, le vizir d'Aménophis II, Amenemopet dit Païry (TT 29).

Une première campagne est programmée pour l'automne 1999; elle sera consacrée à l'établissement d'un diagnostic de l'état général des deux monuments et, surtout, de celui des peintures. Une deuxième campagne devrait avoir lieu des janvier-février 2000: le véritable travail de restauration débutera à ce moment. Ce sont les résultats préliminaires de ces deux premières sessions d'étude que je me propose de présenter au Congrès.

TESTA, Pietro

La chambre de la reine dans la pyramide de Chéops: Une hypothèse sur sa destination

Dans la pyramide du roi Chéops, comme nous savons, il y a trois fonctions funéraires: la chambre souterraine, la chambre de la reine et la chambre funéraire. D'après mes études sur le projet dans l'architecture funéraire royale de l'Ancien Empire, je crois qu'il s'agit de deux variantes principales de ce projet.

La première concerne la chambre souterraine qui, à la fois, présente deux variantes de projet témoignées par les traces des deux boyaux présents dans la pièce.

La seconde est liée à la chambre de la reine et à la chambre funéraire pourvues de couples de canaux qui vont, respectivement, au nord et au sud.

Le canal nord de la chambre de la reine est pointé vers la β Ursae Minoris et le boyau sud vers la α Canis Majoris (Sirius).

Le canal nord de la chambre funéraire est pointé vers la α Draconis et le boyau sud vers la ϵ Orionis.

D'après la recherche dans les Textes des Pyramides sur ces constellations je suis venu à la conclusion que la chambre de reine était destinée à résidence du ka royal en liaison avec le va-et-vient du ba du souverain.

Il y avait ainsi une interdépendance entre la chambre funéraire et la chambre du ka (ba) = père-fils, identique à celle stellaire Orion-Canis Major.

THIERS, Christophe

Notes sur quelques inscriptions inédites du temple ptolémaïque et romain de Tôd

La poursuite de l'édition des textes du temple ptolémaïque et romain de Tôd (n° 173-327) est l'occasion de présenter, à travers une série de notes, quelques particularités rencontrées dans la partie ptolémaïque du temple, c'est-à-dire le pronaos, la Salle des Déesses et les cryptes. L'identification d'un protocole de Ptolémée Alexandre 1er (*Tôd*, n° 241), publié jadis par Lepsius, permet d'envisager la question relative, à la mise en place du

programme décoratif, les Lagides jusqu'ici attestés étant Évergète II et Néos Dyonisos Aulète. L'étude de deux scènes représentant les dieux maîtres d'autel (n° 314-315) est l'occasion de constater la transmission de textes entre le temple d'Edfou et celui de Tôd ou l'utilisation d'un fond commun par ces deux centres religieux. Une scène de la Salle des Déesses (n° 282) met en présence le roi devant Sekhmet et, par un jeu de mimétisme (volonté des prêtres ou simple fantaisie du lapicide?), le roi acquiert un visage léonin, à l'instar de celui de la déesse dangeureuse. D'autres particularités notables (rite détourné, lexicographie) mises en évidence dans le temple de Tôd pourront également être présentées lors de cette communication.

THOMAS, Susanna

Imports at Zawiyet Umm el-Rakham

Recent excavations at the Ramesside site of Zawiyet Umm el-Rakham by the University of Liverpool have produced a substantial amount of foreign imports. Pottery from Syria, Palestine, Cyprus, and the Aegean has been uncovered at various locations in the fortress town, including magazines and chapels attached to the main temple. There are also various samples of different pigments in their raw or frit state, including substantial lumps of blue, white, yellow, green and red.

This evidence indicates the importance of Zawiyet Umm el-Rakham as part of the trading network of the Late Bronze Age in the eastern Mediterranean, comparable with Ugarit, Kommos, and the Ulu Burun wreck as an archaeological site providing tangible evidence of a flourishing trade in goods and services during and perhaps beyond the reign of Ramesses II.

Our understanding of the site is that it was crucial in the trading 'loop', functioning as the first landfall of traders crossing the Mediterranean after the Cyprus/southern Turkey/Aegean/Crete legs of their journey, and as the place where they refitted their ships and restocked their supplies before heading eastward towards the major Egyptian markets at Memphis and beyond (perhaps superseding the nearby site at Bates' Island). The evidence of a wide range of goods and vessels found at ZUR probably indicates primarily luxury items (olive oil, wine, opium?) that were retained by an Egyptian garrison who might regard such luxuries as a major boost to their morale in an otherwise unwelcome foreign posting.

THOMPSON, Jason

Edward William Lane's Description of Egypt

The publications of Edward William Lane are renowned throughout the many fields of orientalist studies. Two of his works, *Manners and Customs of the Modern Egyptians* (1836) and the *Arabic-English Lexicon* (1863-1893), remain standard studies, and remain in print, while his annotated translation

of the *Thousand and One Nights* (1839-1941) and *Selections from the Qur-an* (1843) were also notable contributions to scholarship. These established Lane as a pre-eminent scholar of the modern Middle East. But he was never able to publish one of his most important books. This was his *Description of Egypt*. *Description of Egypt* was the product of Lane's first research trip to Egypt during 1825-1828. Comprising nearly 300,000 words and more than 160 illustrations, it is a multi-faceted work. Its basic structure is a travelogue that recounts Lane's travels through Egypt and Nubia. Onto that framework, Lane engrafted extensive *excursi* into Egyptian history, geography, city and village life, and especially antiquities as he presented detailed descriptions of most of the major archaeological sites between Alexandria and the Second Cataract—all in highly polished prose and exquisite pictures.

Soon after Lane returned to Britain, the prestigious firm of John Murray agreed to publish *Description of Egypt*, and it was indeed because of Murray's encouragement that Lane completed the large project. Then, after some years, Murray withdrew from the project, leaving Lane unable to find another publisher to produce such a large, expensive book. Now, over a century and a half after its composition, the American University in Cairo Press is publishing a complete edition of Lane's *Description of Egypt*. This paper will present the history of the book, assess its significance, and share the experiences of editing and publishing it. Special attention will be given to the importance of the work for the history of Egyptology and as Egyptological evidence. The result will reveal new dimensions in the life and work of one of the greatest western scholars of Egypt and the Middle East.

TIRADRITTI, Francesco

Excavations of the Archaeological Museum of Milano in the Tomb of Harwa (TT 37)

The paper gives a brief report on excavation and restoration activities in the tomb of the Great Majordomo of the Divine Adoratrice, Harwa (XXVth Dynasty). First results show the importance of this huge and wonderful funerary monument for the knowledge of the art, the culture and the history of this period.

TOLMACHEVA, Elena G.

A Reconsideration of the *bnw* or Phoenix in Egyptian Cosmogony

The relationship between the *bn-bn* stone, the earliest known Heliopolitan cult object, and the *bnw* bird, or phoenix, as well as their apparent common etymology from the root *wbn* have been extensively discussed. It follows from Pyramid Text 1652 a-b that the *bnw* bird was not only included in the Heliopolitan cosmogony but also connected with Atum, particularly in his creative aspect. Based on statements from the Coffin Texts and the Book of

the Dead, the author discusses the possibility that the *bnw*, who "has flown up like the primeval ones" on the day of creation with the epithet *xpr Ds=f*, may be considered as an active power of creation.

TOPOZADA, Zakeya

Amasis à Memphis

Le nombre et la variété des monuments d'Amasis, trouvés à Memphis, démontrent que l'importance et la stabilité du nome se maintiennent sous le règne de ce roi. Ajoutons au répertoire déjà recensé, les inscriptions d'une stèle royale—de provenance inconnue conservée au musée du Caire—qui viennent nous apporter des détails intéressants non seulement sur le culte de Ptah mais aussi sur celui d'Isis du nome memphite.

TRAPANI, Marcella

Three Lesser-Known Stelae from the Middle Kingdom

The following paper aims to put forward three lesser-known stelae from the Middle Kingdom nowadays kept in the Egyptian Museum in Cairo. The three stelae, respectively numbered CG 20609, CG 20594 (JE 21905) and CG 20530 (JE 22183) are not precisely dated and, as far as the author knows, neither extensive photos nor satisfactory translations of them exist. The writer intends to fill this gap as concerns these interesting documents.

The stela CG 20609 belongs to the *mr kdnw Ddw* and stands in the Cairo Museum deposits. It is a limestone, rounded top stela and is seriously damaged especially in the lower half. Its place of provenance is unknown. The stela CG 20594 is much better preserved. It shows a painted, hollowed frame and an offering scene in the middle. It belongs to the *mr nwb Imny* and comes from the north cemetery in Abydos. Lastly, the stela CG 20530 is better known in the Egyptological literature and is also mentioned in PM. The owner is *Hr-m-mh-lb*, a priest of Horus of Behedet. The stela has a rounded top and the drawings and hieroglyphs are carved. The presumed provenance is Edfu, even though the JE entry gives Luxor.

By studying these documents the writer will make the point about the *vexata questio* of datation of Middle Kingdom stelae and their places of production. Unpublished photos will be shown during the paper.

TREDINNICK, Stephen

The Origin of the Ankh: A Theory in Support of Ancient Egyptian Intelligence

The ankh (S34), the Egyptian hieroglyph denoting 'life,' has been variously interpreted as a sandal strap, an amuletic knot, a penis sheath, and a mirror.

This paper proposes that the ankh is an ideogram combining two symbols, the s3 sign (V17, 18) and the 'girdle knot' (S24), which represent female and male reproductive elements, respectively. In combining these two symbols, the Egyptians hoped to mimic biological reality. The author supports the view that the s3 sign, meaning 'protection,' represents the vagina and the uterus: shape and meaning coincide. The s3 and the ankh were portrayed at different times with an open or closed stem. This reflects the problem of how to represent the vagina, an expandable tube.

The hieroglyph S24 is an ideogram in the Egyptian *Tst*, which has two meanings, 'knot' and 'vertebra.' The ancient Egyptians were aware that the male contribution to conception was semen, and they believed that semen emerged from a man's bones. Vertebrae were used by the Egyptians to represent the male principle, for example the djed column and, the author contends, the emblem of the ithyphallic fertility god, Min (R22, 23).

The ankh is thus a portrayal of a vertebra bound to the junction of a vagina and uterus. The composite Egyptian word for 'life' comprises the ankh (united male and female reproductive elements), a placenta (Aa1) and water (N35). This is an intelligent symbolism containing the essential elements required to create life.

TRELLO, Jesús

Traces of the "Beautiful Feast of the Valley" in the Western Christian Tradition

The "Beautiful Feast of the Valley" has common elements with the feasts of the dead in Christianity: candles, canticles, funerary food, flowers, etc. These manners were incorporated like canonical rules into Christendom by doctrinal reinforcement in early Christianity through the complex Alexandrian syncretic world.

The fast diffusion of Christianity during the fourth century was aided by the previous Egyptian mystery cults that existed in the Roman Empire. These cults wrongly identified the god Anubis, Osiris's son, as the driver of the souls (*psicopompos*) in the world of the dead. The role of Anubis *psicopompos* is associated with the month of November in several documents from the third to the fourth centuries AD, such as the mosaic of Thysdrus or the "Chronograph 354". In that mosaic, we can see a person embodied in the Anubis mask, in the illustration which corresponds to November. Also, November is illustrated in the "Chronograph 354" with a priest near a pedestal where the Anubis mask is placed ready for its use by the priest. The copies of "Chronograph 354" that remain today are documents which were elaborated from a Carolinian document lost today.

The liturgy of All The Martyrs was celebrated in spring (13th May) during the fourth century AD, the same season as in ancient Egypt. In western Europe, it was changed to autumn (November 1st) in the ninth century AD by imposition of Pope Gregory IV, suggested by Ludovico Pio Emperor,

Carlomagno's son, in a parallel process to the dissociation between the Roman Clergy and the Byzantine Clergy.

TUCKER, T. L. and Zahi HAWASS

A Biocultural Study of Health and Centralized Economic Authority during the Roman Period of Ancient Egypt

Roman rule in Ancient Egypt is characterized as a period of great cultural and economic revival. Historic documents reveal a strong centralized government that prospered as measured in exports, revenues collected and territorial expansion. However, Roman rule in Egypt has been described as unjust where "anarchy prevailed and religious persecution added to the misery of the people" (Fakhry 1974:67). Indeed, analyses of Roman census data indicate that Egyptian females were subject to high mortality and life expectancy at birth was 22.5 years, and for Egyptian males, life expectancy was 25 years (Bagnall and Frier 1994:57, 100). The objective of this research is to understand relationships between quality of life and centralized authority during the Roman period of Egypt.

This objective was tested by applying an interdisciplinary approach, drawing upon the fields of economics, nutrition, and anthropology to identify and understand relationships between economic status (as revealed by the archaeological record and historic records) and health (as scored by skeletal indicators of poor dietary intake, high disease loads, and trauma).

Rock cut tombs from a Roman period cemetery were excavated from Bahariyya Oasis, Egypt; 350km south-west of Cairo. Preliminary analyses indicate a low frequency of infectious disease, a high frequency of degenerative disease and an older age at death for both males and females in comparison to Roman census data. In addition, frequent cases of trauma were noted. Bioarchaeological comparisons between the Nile Valley/Delta and the Bahariyya Oasis indicate that the Oasis population had a lower incidence of skeletal stress and greater age at death.

The study of Roman Egypt is conventionally examined from the perspective of the rulers from the top down. Classical scholars are restricted to historical documentation. Bioarchaeological analyses allow the examination of direct evidence of life processes at all levels of Egyptian social status. This project integrates health within a comprehensive historical account of life in Roman Egypt, thereby improving our understanding of adaptation and fitness of the Egyptian population within the centralized economic authority of the Roman government.

UPHILL, Eric

The Butic Canal: Its Date and Functions.

This artificial waterway had an estimated length of 180 kilometres, and starting from Tell Defenneh, connected eleven Lower Egyptian nomes on or near its route. Inscriptional evidence suggests it was created by, or else

completed under King Psamtek I (664-610 BCE). Among its varied uses, it could have served to transport grain and commodities by boat, and help irrigate lands on either side of it. In addition it could also have been used for moving troops as was done by the Emperor Titus. At a time of military threat by the world power Assyria, a major canal protected by and communicating with Greek and Egyptian troops at Marea in the west and Daphnae in the east would also clearly serve as a first line of defence for the Saite rulers.

USICK, Patricia

Buried Treasures: Archaeological Discoveries from the Portfolio of William John Banks and his Artists in Nubia, 1815-1822

'Do let this be a stimulus to yourself, not to bury your treasures at your country house, where they can never generally be admired'. Letter from J-L Burkhart to Banks, 15 July 1816.

The portfolio of fifteen hundred drawings made by the wealthy and brilliant William John Banks (1786-1855) and his artists, travelling and working in Egypt and Nubia between 1815 and 1822, constitutes an important early scholarly record. Of particular interest are sites and monuments in Nubia and the Sudan, many of which are now destroyed, damaged, or have been moved due to the creation of Lake Nasser. Together with Henry Salt, Henry William Beechey LMA, Linant de Bellefonds, and Alessandro Ricci, Banks produced plans, views, descriptions, and, above all, remarkably accurate copies of reliefs and inscriptions. This mass of information was never arranged and published, and remained in the Banks family home, Kingston Lacy in Dorset.

A catalogue raisonné has now been produced of the Nubian drawings covering the sites running between Dabod and Naqa, including Gebel Barkal, Meroë, and Musawwarat; many virtually unknown at that time. This has provided the basis for an assessment of the archaeological and epigraphic significance of the record. In addition, the unsigned drawings have now been attributed to individual artists on stylistic criteria, and, using unpublished journals and correspondence, the two journeys of 1815 and 1818-9 have been reconstructed. Many previously unrecognised drawings have now been identified, and texts of particular interest recorded on the drawings have also been examined.

Banks' role as a pioneer in the field of Egyptology, including his contribution to the study of decipherment, can now be reassessed.

VACHALA, Bretislav and Michael BALIK

The Ideal Restitution of the Mastaba of Ptahshepses at Abusir

The mastaba of the vizier Ptahshepses at Abusir (temp. Niuserré), systematically excavated by the Czech Institute of Egyptology in the 1960s and early 1970s, has proved to be the most complex architectural structure of its type hitherto known from the Old Kingdom. The authors of the paper, an

Egyptologist and an architect, present the ideal complete scientific restitution of this unique monument. Having used the ARC + modelling software for the architecture of the mastaba, they introduce its visualization by SILICON Graphics 02 (MAYA software) and final results by APPLE G3 computer (PHOTOSHOP software). The complete documentation is added for the first time. At present, certain reconstructive works in the mastaba are being carried out in close co-operation with the Egyptian Supreme Council of Antiquities. Doubtless after the planned opening of Abusir to the public in the near future, the mastaba of Ptahshepses will be one of the most attractive monuments for visitors to see in this famous pyramid necropolis.

VALDESOGO MARTIN, Ma Rosa

Le cheveu dans le contexte funéraire, d'après les textes des sarcophages: Symbolisme et rituel

Le travail a commencé avec la lecture des *Textes des Sarcophages* du Moyen Empire. On en a tiré beaucoup de références quant aux poils du corps (aisselles, moustache...) mais surtout par rapport aux cheveux et, concrètement, ceux des pleureuses.

En faisant des comparaisons avec d'autres textes funéraires, on a remarqué aussi d'autres allusions à cet égard. D'autre part, dans l'iconographie des tombes, les représentations des pleureuses qui bougent violemment et agitent leurs chevelures sont nombreuses.

De même, l'archéologie a permis de retrouver des restes de cheveux qui faisaient partie des offrandes funéraires et étaient déposés à côté du défunt, entre ses jambes ou dans des réceptacles.

Un élément tellement constant dans les textes, l'iconographie et l'archéologie n'est pas gratuit. Il s'agit d'une composante aussi bien symbolique que matérielle du rituel funéraire destiné à la résurrection du mort.

L'objet de cette communication, c'est de montrer de quelle façon le cheveu faisait partie de la cérémonie de régénération (comment les pleureuses le manipulaient et à quel moment du rituel) et quelle était son importance.

Van Den BERG, Hans and Dirk Van Der PLAS

ICT tools from the Center for Computer-aided Egyptological Research

In this contribution, four tools will be presented:

- (1) The hieroglyphic text processing programs Glyph Windows/Macscribe with the Extended Library containing 6800 signs;
- (2) The integrated Egyptological Database System (IEDS) with the Multilingual Egyptological Thesaurus (MET: Dutch, English, French, German,

Italian, Portuguese and Spanish);

- (3) The CD-ROM series "Egyptian Treasures in Europe"; and
- (4) The Coffin Text Word Index.

Van HAARLEM, Willem M

The Excavations at Tell Ibrahim Awad (Sharqiya Province)

Since 1988, regular excavations have been going on at Tell Ibrahim Awad. In Area A, where work has been concentrated since 1993, foundations of an early MK temple were found, together with a cemetery. This appeared to have been one of the largest known temples of this period. The first temple layer below MK level, preliminary dated as FIP/Late OK, was levelled for the construction of the MK temple. It had, however, a completely different layout, size and orientation.

This became clearer in two earlier building phases, revealing the original architectural concept for this modest, but unparalleled OK temple. In several closed rooms here a large number of vessels were found with a ritual function, like libation vases and offering stands. These were abandoned for further use in the temple, but had to be carefully stored as sacrosanct.

In a next, slightly lower level with basically the same layout, more rooms were found. They contained hundreds of mainly faience objects, varying from abandoned construction elements like tiles to purely votive objects like animal and human figurines, closely related to finds in the early Satet temple at Elephantine. Special attention is focused on the ivory objects with close parallels to finds in Abydos and Hierakonpolis. The dates for some of the objects in the deposits go back as far as the Archaic period or may be even earlier.

The temple layout of the next (Archaic) layer was, again, quite different from the previous phase. Deeper layers are difficult to reach due to the subsoil water.

Van SICLEN III, Charles C.

Giza in the Eighteenth Dynasty

From the reign of Tuthmosis I to that of Tutankhamun, Giza was a focus of royal interest. The surviving architectural and epigraphic remains, now mostly available through published excavation reports and studies, provide the materials by which the development and importance of the region may be studied. On the one hand, it may be possible to reconstruct the unusual structure built by Amenhotep II in front of Hor-em-akhet, the great Sphinx. Clearly, his building was not a typical temple, but what was it? Parallels elsewhere suggest a possible interpretation. On the other hand, intangible events also may be recovered. A case in point is the official promulgation of the titulary of a new king. Based on an interpretation of surviving remains, it is

possible to follow the events which led up to a ceremony in which the names of the new king—in this case Amenhotep II—were first revealed at Giza in the presence of the Sphinx.

Van WALSEM, René

Dutch Excavations at Saqqara 1999-2000 (The Museum of Antiquities, Leiden, and Leiden University)

From January-February 1999, the joint expedition of the Museum of Antiquities at Leiden and Leiden University continued the excavations which have been conducted by the Museum and the EES from 1975-1998 at Saqqara. The site investigated measures roughly 12x20 m due south of Horemheb's second courtyard, and west of the tomb of Iniaa. A number of shafts and structures of varying dates were located. The shafts, the emptying of which was left for next season, seem to date from the New Kingdom to the Late Period. Against a Coptic wall, a sizeable dump was found. Most important were two burials containing a rectangular coffin with black and yellow decoration and texts, and an undisturbed anthropoid coffin (with white, black and red decoration) plus a mummy together with personal belongings (a head rest, heart scarab, signet ring, inlaid pectoral), most likely dating before Horemheb's tomb. Interesting uncontexted artefacts were also found all over the site, such as a big limestone shabty of a certain Bay with a garbled hieroglyphic text on its front and a hieratic one on the back. The shafts will be investigated during February-March 2000. The results of that campaign will be presented in the second part of this paper.

Van WETERING, J. F. L.

Early Cemeteries of the East Delta; Kafr Hassan Dawood, Minshat Abu Omar and Tell Ibrahim Awad

Over the past 25 years, several sites in the East Delta, dating to the Late Predynastic, Protodynastic and/or Early Dynastic periods, have been investigated. These sites include settlements and cemeteries, such as Minshat Abu Omar (MAO), Tell Ibrahim Awad (TIA), Beni Amir, Kufur Nigm, Tell Fara'on, Tell es-Samara, Tell el-Farkha, Minshat Ezzat (near Simbillawein), and Kafr Hassan Dawood (KHD).

At KHD, MAO and TIA the occurrence of high status goods, such as copper, gold or silver objects and imported objects, gives us an indication of wealth distribution within the society. The procurement, production and distribution of copper, probably from the Sinai and/or the Southern Levant, as well as the interregional trade with the Levant, seem to have played an important economic role. The occurrence of serekhs at these sites points to

the importance the state attached to the region. The demise of the local elite soon after the beginning of the 1st Dynasty seems to be related to the consolidation of state power in the region.

VANDIVER, Pamela Bowren and Peter LACOVARA

A Comparison of Faience and Glazed Quartz Technologies in Nubia and Egypt and the Problems of their Preservation

A technical analysis of glazed quartz and faience from Kerma and of faience from other Nubian sites will be presented, and compared to previous analyses of faience from Egyptian sites. The faience glazes and glazes on quartz from Kerma are rich in copper oxide, up to 20%, and the temperatures of firing are higher than those of many Middle Kingdom and Second Intermediate Period faience glazes. Because of the similar valence and atomic radius of copper oxide to calcium oxide, we suggest that the copper may behave in the same way as the calcium oxide, that is as a stabilizer of intermediate bond strength. This behavior may explain the superior durability of the Kerma glazes, but such unusual chemistry also highlights differences of technological importance that will be summarized in the presentation.

VASILJEVIC, Vera

Some Remarks on Royal Representations from Private Tombs of the Middle Kingdom

The tombs of the ancient Egyptians reflect the notion of afterlife and are supposed to meet a great part of the needs of their dead owner. Although the tomb architecture, decoration and burial equipment are not uniform due to a number of reasons, the basic prerequisites of afterlife which the tomb should fulfil stay the same over the course of time. Some of them can be expressed by different means (e.g., real food, food in offering lists, its pictorial representation, models, etc.), simultaneously or using only some of them at a time. But if the continuity of an idea is traced exclusively through one category of evidence, it can seem that its presence in funerary context is discontinuous. When applied to the studies of tomb decoration, that kind of approach fails to explain satisfactorily the disappearance of some themes over a period of time.

The re-examination of one such theme is presented in the paper. The evidence indicates that the royal "presence" in the Middle Kingdom private monuments related to the funerary beliefs is not confined to the few royal representations from the private tombs, thus showing that these

representations are not to be seen as isolated examples, preceding the much more numerous ones from the private tombs of the New Kingdom, but as only one of possible ways of expressing a continually present idea.

VERNER, Miroslav

Several Remarks on 5th Dynasty Chronology

In the Old Kingdom history there are several obscure periods, the clarification of which are complicated by the shortage of source material. One of these periods comprises the reign of Shepseskare and Neferefre. Who were these kings? How long did they reign? Did Neferefre follow Shepseskare or the other way round? The evidence of the ancient Egyptian king lists pertaining to these two kings is incomplete and inconclusive. And so is the hitherto available contemporaneous archaeological and written sources.

New information concerning both kings has recently emerged from the archaeological explorations carried out by the Czech Egyptological team in Abusir. In the light of new archaeological finds from Abusir, it is quite likely that Neferirkare was not succeeded immediately by Shepseskare, but by Neferefre. Shepseskare probably ascended shortly the throne after the premature death of Neferefre; nevertheless, at the time, Neferirkare's youngest son, Niuserre, thrust forward his own bid for the throne—possibly strongly supported by his mother Khentkaus II and some influential courtiers.

Von BOMHARD, Anne Sophie

The Delta and the Calendar of Ancient Egypt

The Nile Delta will no doubt be a site of great archaeological discoveries in coming decades, thanks to new technologies implemented in earthbound excavation, as well as the growing importance of underwater archaeology. That part of Egypt is currently the focus of intense interest among researchers, including major efforts of conservation as well as the creation of museums to present the growing number of vestiges.

Several objects recently discovered in the Delta draw attention to Lower Egypt's role in the creation of the calendar, indicating that in earliest times, the counting of time seems to have been linked to some areas in the Nile Delta.

In the west, the mythical town of Buto is closely linked to the New Year rites and ceremonies confirming the royal power, which took place there in ancient times. We present some points that may identify this town as the site of reference for the helical rising of Sirius, marking the beginning of the year for all of Egypt. East of the delta, the *Castle of the Nebes Tree* is linked to the decans and the god Sopedu, whose name may lead to suppose that he is the male counterpart of Sothis, herald of the New Year.

We submit a new theory on the calendar, suggesting that it is essentially

based on the stars and the decans, and organised around Sirius. The mechanism described allows one to count the time in fixed years, as well as to explain the imperative maintainance of the mobile year, which was used habitually throughout Egyptian history.

VÖRÖS, Győző

The Ancient Nest of Horus above Thebes: Hungarian Excavations at the Temple of Pharaoh Montuhotep Sankhkara

It is now four thousand years since Pharaoh Montuhotep Sankhkara (2010-1998 BC) raised a temple on the horizon of the west bank at Thebes, on a peak rising to the north of the Valley of the Kings. This temple lies 5 kilometres from the nearest desert road accessible to vehicles, and 400 metres above it. Until the expedition from Eötvös University, Budapest, this difficult terrain discouraged Egyptologists from attempting a methodical excavation of the hilltop site. The Hungarian Archaeological Mission to the Thoth Hill spent fifteen months at Thebes, excavating and restoring.

The ruins of Montuhotep III's temple yielded all the architectural features and archaeological finds needed to assess the site from an Egyptological perspective. The Middle Kingdom mud-brick temple was erected on the level area of a terrace built from natural local stones and lengthening the crest of the hill in the form of an artificial neck of land. Sankhkara's royal titles and the dedication of the temple were carved symmetrically on the limestone door-jambs flanking the sanctuary entrance. Among other items foundation deposits from the four corners of the temple consisted of alabastron-type vessels, sacrificial saucers, terracotta animal figurines and parts of slaughtered ruminant animals. A large number of fragments were found of three baboon statues, carved from limestone and representing the god Thoth. Pieces of the sanctuary lintel, decorated with a winged sun-disc, also came to light.

Under the floor level of the 11th Dynasty artificial stone terrace, we discovered the remains of a previously unknown Archaic Period stone temple, the earliest recorded building in the Theban region. These walls, built from natural local stones, served as the base of the same kind of ascending walls covered with white plaster, which had collapsed in a huge earthquake. Our mission was completed by carrying out the protective conservation of the temples and the restoration of the artefacts.

WALTERS, Elizabeth J.

Women in the Cult of Isis at Hierakonpolis

Hierakonpolis has the earliest representation of women in several roles active in the cult of Isis. This festival occupies two walls in the forehall of the Tomb

of Hormose, 1.5 km south of the ancient town, and 3.5 km from the Nile. This desert location has increasing humidity and has long been harmed from water seepage into the fissured, layered sandstone.

Damage to the tomb could well have erased important evidence. We were fortunate to make the first careful study of this tomb in 1978, conserving important inscriptions and fine detail no longer extant by 1992. The name of Isis occurring in the festival inscriptions was only visible in 1978. This 1978 evidence (drawings, photographs, and notes by the epigraphic team of the original Hierakonpolis Project: Dr. Klaus Baer, J. Fairervis and E. Walters) is critical to the identification and dating of the tomb to the eleventh century B.C. (Baer) and is the basis for interpretation of the Isis festival (Walters) and 1997 reconstruction, presented here.

The 1978 data prove that this Isis festival is exceptional in content, image and titles. Chorus and dancers not only celebrate but also voice the power of the goddess, and identify one woman as a living representative for Isis, the first known surrogate for Isis. Title and headdress of the priestess and other features visible in 1978 present a hierarchy with emphasis on the surrogate. Surprising is also the allusion to an Isis water festival. Evidence from excavations in the Temple precinct suggests continuity.

WATRIN, L. and O. BLIN

The Nile's Early Stone Architecture: New Data from Ma'adi West

An excavation was conducted by Professor F. A. Badawi from el-Azhar University on the Western sector of the Predynastic site of El-Ma'adi in 1985-86 (Badawi, 1987). The main discovery was a semi-subterranean structure, elliptical in shape, and entirely built in stone. Its external dimensions are 10.50 m x 5.50 m, and its preserved height is 2 m. On the beaten earth floor of the structure were found fragments of reeds and baked-earth, which in all probability are the remains of the collapsed roof. The internal corners of the structure are rounded, just as are the external ones. The presence of a niche, and some others facts, may suggest a place of worship.

This subrectangular stone structure with rounded corners is strikingly similar to stone houses of Southern Lebanon excavated on the site of Sidon-Dakerman by R. Saidah in 1979. This site can be dated from the beginning of the Early Bronze Age I (c. 3650-3500 BC), a period contemporary with Ma'adi (Naqada Ia-Ila).

If confirmed as prehistoric, this structure would represent the most ancient stone building yet discovered in the Nile Valley.

WATRIN, Luc

Lower-Upper Egyptian Predynastic Interaction: From Incipient Trade in the Delta to the Ascendancy of Southern Chiefdoms

At the beginning of the 4th millennium, contacts between different peoples of the Nile are confirmed by the presence of Naqadan ceramics at Ma'adi and of manufactured goods from Lower Egypt (copper tools and basalt vases with a conical base) in the necropoleis of Upper Egypt in Naqada Ic-Ila (Matmar, El Mahasna). These relationships seem to be sporadic, following a 'down the line' mode of exchange.

Towards the mid-4th millennium, the southern chiefdoms spread over Middle Egypt in Naqada IIb, then in the area of the Fayyûm in Naqada Iic, as shown by the foundations of Gerza and Haraga. Exchanges intensified and followed a reciprocity (boundary) trading type. We can observe the growth of a raw material trade (gold, silver) and of contacts with other booming areas, notably that of Uruk. This integration in the international trade networks remained however under the control of the Delta chiefdoms.

From Naqada IId 1, radical changes occur: we can note the foundation of Naqadan trading posts in the eastern Delta (Minshat Abû Omar) testifying to an evolution in the exchanges towards a colonial enclave model corresponding to the rise of a predatory power at Abydos. At Naqada III, the Delta falls under the Dynasty 0 kings' economic control and the political unification process is consummated at the time of King Narmer. This paper will principally try to establish a relative chronology between Lower and Upper Egypt and to determine the socio-cultural dynamics existing between the two areas.

WENDRICH, W.Z. and S.E. SIDEBOTHAM

Trade and Desert Dwellers: Excavations at Berenike and Survey of the Eastern Desert, 1994-2000.

From the third century BC onwards, the harbour town of Berenike was an important emporium on the trade route between India, Arabia, Africa south of the Sahara and the Mediterranean. In 1994 a team of the University of Delaware (USA) and Leiden University (the Netherlands) started excavations at Berenike and continued the survey of the Roman and Ptolemaic road and settlements systems in the Eastern Desert between Berenike and the Nile Valley. This paper will give an overview of the results so far, including those of the most recent excavation season, which will be concluded just before the start of the conference.

WIEDEMANN, Hans, Claudia MARCOLLI and Armin RELLER

Pigments of the Bust of Nefertiti compared with those of the Karnak Talatat

The elaborate characterization and specification of materials (e.g. pigments) used for decorating statues and buildings may be achieved by means of complementary methods of investigation such as analytical light and electron microscopy, thermal analysis, X-ray and neutron diffractometry and various spectroscopes. The results do not only reveal the historically relevant exploration and refinement techniques of natural resources, but also the types of application on different supports. In addition, deterioration and erosion processes can be monitored and eventually conservation and restoration procedures can be derived. The investigations of pigments from Nefertiti's head (Berlin) and talatat from the dismantled temple erected by Akhenaten in Karnak will be presented. Special attention was paid to those minerals which, in both cases, could be identified unambiguously by means of X-ray diffractometry and spectroscopy with the so-called Egyptian blue. Other pigments used in the decoration are iron oxides (red), amorphous carbon, orpiment (yellow) as well as wax mixtures. Wax from Nefertiti's eye has been analysed with respect to its composition and age by gas chromatography/mass spectrometry GC/MS and by accelerator mass spectrometry (AMS). Whereas most of the mentioned pigments are chemically inert and therefore still visible, other pigments such as green may have vanished more or less completely. In summary, our investigations confirm and further reveal the skill of the Egyptian artisans and may elucidate a more detailed 'life cycle analysis' of the materials used, spreading from the historical natural resources to our present reconstruction of Egyptian history.

WILKINSON, Alexandra Helen

Private "Valley Temples" beside Water on the West Bank at Thebes?

Paintings in Theban tombs show a pool in an orchard, with sometimes a boat being towed across the lake, as in the tomb of Rekhmire, and a shrine by the water's edge, as in the tomb of Minnakht. Where were these installations located? Were they purely symbolic? Or did they exist in reality?

The answer may be provided by a painting in the tomb of Ipouy (TT 217) which shows, in separate locations, a tomb in the desert, a shrine beside water, and the river itself or a canal. In my opinion this painting indicates that the shrine beside water was a real place, not outside the tomb, but near a canal. It is therefore likely that there was a network of canals coming off the Nile on its western side, near which these memorial shrines pools and orchards were placed. The personal rituals for the Beautiful Festival of the Valley would therefore have taken place here, for some families. The presence of the Valley Temple of Hatsheput near the river adds weight to the argument.

WILSON, Penelope

The Royal City of Sais (Sa el-Hagar)

Recent work at the site of Sais has begun the archaeological reconstruction of the ancient city. Little work has been done here since the late nineteenth century and modern visitors have had a confusing impression of the site. Since 1997 the Egypt Exploration Society mission to Sais has carried out a topographical survey of the site and its environs, made some detailed magnetometer surveys of selected areas and begun a drill auguring programme to evaluate the extent of the buried archaeological remains. Later standing remains have also been planned and surveyed including a Roman bathhouse, mud brick buildings and the last vestige of a monumental limestone wall, perhaps from one of the many known temple buildings at Sa. This paper will present the results of three seasons of fieldwork and also suggest a model for the possible development of Sais from Predynastic times through to the modern period.

In order to put the city into its geographical context we have concentrated on the relationship of Sa to the River Nile and suggest that this is one of the prime factors in the development of the city. In addition I shall suggest some preliminary remarks on the wider implications for the history of the Western Delta and future research in this area.

YEHIA, Lutfi Abdul-Wahab

Rhacotis: An Egyptian Stronghold against the Attacks of the Sea-People

Colonising parts of the Egyptian Delta was one of the main targets of some wandering and turbulent peoples coming from the northern Mediterranean during the second half of the third millennium BC.

These people, designated by the Egyptians as the Sea Peoples, repeatedly attacked the northern coast of Egypt especially between c.1235 and c.1190 BC, with a period of premonition, and another of apprehension before and after that span of time respectively. A reference to a battle between the Egyptians and the Sea Peoples is in inscriptions at the temple of Ramses III in Medinet Habu opposite Luxor and another mention of a battle between the two sides, opposite the coast of Rhacotis, occurs in Strabo's *Geography* written almost 12 centuries later.

Depending on a comparison between the two texts, the present paper is an attempt to establish the position of Rhacotis as a main stronghold against the attacks of the Sea Peoples on the northern Egyptian coast.

YOSHIMURA, Sakuji

Recent Excavations of Waseda University in the Saqqara Area and on the West Bank at Luxor

The first Japanese academic survey was carried out by Waseda University in 1966. The small party of six members conducted the general survey along the Nile Valley, which formed the foundation of the Egyptian Culture Center, Waseda University. Since then we have conducted several archaeological investigations for over thirty years: the excavations at Kom el-Samak and Dra' Abu el-Naga, the cleaning and conservation of the tomb of Amenophis III, and the scientific survey of the Giza plateau.

Waseda University started the excavation on the top of the hill situated far into the desert between Saqqara and Abusir in December 1991. In this presentation, the result of the eight seasons' excavations will be summarized.

Two main structures were uncovered in our site. The first one is a stone monument measuring approximately 25m (north-south) by 30m (east-west). Relief fragments and foundation deposits found during the excavation certainly show that this stone building can be ascribed to Prince Khaemwaset, the fourth son of Rameses II. The second is a mud-brick building, the dimensions of which have been estimated at 25m (north-south) by 22m (east-west). Archaeological data suggest that this monument could be dated to the middle of the 18th Dynasty. It is highly possible that Tuthmosis IV had some relationship to this building because a stela depicting him has been found there.

These discoveries shed new light on the history of the Memphite area during the New Kingdom.

YOUNIS, Sobhy A.

Psammetichus I and Gyges: A Secret Alliance?

The accession of Psammetichus I around 664 B.C. marked a crucial point in the history of the relationship between Egypt and the Hellenic world. His collaboration with the waning Assyrian state against the Kushites and other princes in Egypt did not fulfil his aspirations. He was determined to dominate all of Egypt.

The Classical authorities stated that he achieved his goal with the help of Ionian and Carian mercenaries. They most probably arrived in Egypt for the first time between 664 and 656 B.C. This date almost coincides with the date of the alliance between Psammetichus, king of Egypt, and Gyges, king of Lydia, who enjoyed significant influence in Ionia and Caria. On the other hand, the Assyrian records argue that the Assyrians had no information about this alliance until 643/2 B.C. The two parties to the alliance were not eager to reveal their collaboration out of fear that it might provoke Assyria. This means that the alliance between Psammetichus and Gyges was held in complete secrecy till 643/2. In view of this fact one can easily understand why

Herodotus' account, which was narrated to him by the Egyptian priests, does not mention Gyges or the Assyrians. One can understand also to what ends Gyges constantly sent messengers with gifts to Nineveh, as recorded by the Assyrian accounts of the years 663, 649, 646 and 645 BC.

YOUSSEF, A. Abdel Hamid

Coptic words in the Arabic-Egyptian dialect

Despite the numerous invasions and ethnic wars that poured into their country, the Egyptians kept their entity and traditions. Herodotus, an eyewitness, took note of this. "Egypt is the mother of the world" is a motto uttered all over Egypt down to the present day. "Lost is he who deserts his past" is another motto that descended to them thousands of years ago. Hence, though sometimes eclipsed by some intrusive adoptions, the unbroken chain of tradition together with an unlimited number of ancient Egyptian words and idioms is still current among them and especially in the country.

Egyptians or Copts whether Moslems or Christians have even kept on adopting—despite their deep rooted religious zeal—the old personal names even though originally pagan and implying high esteem for ancient gods and idols; names like Panoup and Pahor. The Coptic Church still celebrates parts of its liturgies in Coptic. They assume the same attitude with the Coptic calendar in the very presence of the current Gregorian and Hegira calendar. It is by the Coptic calendar that the Egyptian peasant still organises his daily life and agricultural activities, regardless of names like Thot and Hathor.

In short, the Egyptians still keep a tremendous number of Coptic-Egyptian words in their current vocabulary spread almost all over the minute details of their daily life. A flood of examples is not wanting. These will be given in some detail in this lecture.

ZAKRZEWSKI, Sonia R., Robert A. FOLEY and Marta Mirazon LAHR

Population Change or Population Continuity Over the Predynastic and Early Dynastic?

Group biological identity and distinction can be inferred from archaeological cultural remains but can be demonstrated from skeletal, and particularly cranial, remains. Migration and interbreeding can thus be recognized. The skeletal remains also provide an important resource to study disease, growth, and the manner in which they interact. Social organisation can buffer this relationship and therefore modify human growth patterns. As a result the period with racial change from the Predynastic to early Dynastic was chosen for study.

Osteological and palaeopathological methodologies were used to gather data as to the population group, health and growth patterns in various

Predynastic and early Dynastic populations. The methodology followed used Howells' and Lahrs' cranometrics and Martin-Saller and Brauer's postcranial measures. The populations studied include the Badarian, the Predynastic from Gebelein and the early Dynastic at Abydos. This paper assesses the changes in the population history through craniometrics and then considers long bone growth through the Naqada periods and compares this with the early Dynastic periods. In this way, change in population, stature and other lifestyle effects associated with the transition from Predynastic to the Dynastic can be assessed.

ZAUZH, Karl-Th.

Die Herkunft des Alphabets

Gegenüber der Standardtheorie, nach der die phönizischen Schriftzeichen und damit auch unser Alphabet von der protosinaitischen Schrift abgeleitet sein sollen, ist die auf de Rougé zurückgehende Theorie einer Ableitung aus der hieratischen Schrift fast in Vergessenheit geraten. Der Verfasser nimmt die hieratische Theorie wieder auf und begegnet dem Vorwurf zufälliger Ähnlichkeiten dadurch, daß er die Buchstabennamen als Wiedergabe ägyptischer Wörter ansieht. Der "Schrifterfinder" hat eine Vorlage nach Art des Sign-Papyrus benutzt und aus dessen zweiter, hieratischer Spalte die graphische Form sowie aus der dritten Spalte die Namen der Buchstaben übernommen. Dabei hat er die ägyptischen Wörter teils transkribiert (z.B. w3.t > Bjt, dr.t > Dlt, pr > p3 > Pj), teils übersetzt (r3 rmt > rj 3jsh > Rjsh, aber r3 > Rho). Dieser Ansatz erlaubt die Erklärung der graphischen Form aller Buchstaben sowie ihrer semitischen und griechischen Namen. Dabei stellt sich überraschend heraus, daß die griechischen Buchstabennamen in mehreren Fällen den ägyptischen Wörtern näher sind als die semitischen.

ZAYED, Abdel Hamid

Exploits Sportifs du Roi Amenophis II

Nombreux sont les monuments qui relatent les exploits sportifs du jeune et noble roi, Thoutmosis III, guerrier passionné, ainsi que ceux de son fils Aménophis II qui reprit avec plus d'ampleur encore l'initiative de son père pendant la période d'association et pendant sa jeunesse.

Ses plaisirs étaient la chasse et l'équitation. Alors qu'ailleurs la matière est découpée et traitée en études fragmentaires, j'ai réuni ici tout matériel nécessaire au commentaire, qu'il s'agisse de la documentation iconographique et cherche à tirer le meilleur parti possible de cette documentation:

L'éducation physique d'Aménophis II.

Aménophis II comme archer.

Aménophis II et les chevaux.

Aménophis II comme rameur.

Aménophis II comme chasseur.

ZIEGLER, Christiane

La mission archéologique du musée du Louvre à Saqqara

Depuis le printemps 1991, la mission archéologique du musée du Louvre étudie un secteur de la nécropole de Saqqara. La concession accordée par le Conseil suprême des antiquités de l'Égypte est située au nord de la chaussée menant à la pyramide du roi Ounas.

Cette recherche s'inscrit dans une entreprise scientifique, la publication de la chapelle funéraire d'Akhethetep, vendue au musée du Louvre en 1903 par le Service des antiquités de l'Égypte. Il était nécessaire d'en analyser l'architecture et de la replacer dans un contexte géographique, historique et religieux. En premier lieu, il importait de situer exactement le monument dans la topographie de Saqqara; or il ne figurait sur aucun plan.

La tombe d'Akhethetep a été identifiée en 1996. Elle est située au cœur d'un vaste complexe funéraire dont le dégagement est en cours. En chemin, beaucoup d'autres découvertes ont eu lieu. Au cours de ces années, ce sont plus de 3000 ans de l'histoire de Saqqara qui ont ressuscité. Sur une stratigraphie d'une épaisseur d'à peu près dix mètres, les vestiges révèlent une occupation qui s'étend de l'Ancien Empire au Xe siècle après J.-C.

ZIGNANI, Pierre

Étude architecturale du temple d'Hathor à Dendera

Présentation du travail de relevé et d'étude architecturale en cours dans le cadre de la mission de l'IFAO à Dendera.

Très peu de grands sanctuaires pharaoniques ont fait l'objet d'une documentation et d'étude architecturale précises. On ne peut guère s'étonner des lors, d'avoir peu de connaissance en terme de conception architectonique et d'évolution des techniques de l'art de bâtir des anciens égyptiens.

Il est certes possible de citer quelques exemples de publications assez complètes, mais on doit reconnaître au niveau même de la documentation graphique à disposition, que l'on a souvent rien de plus récent que des reprises de l'inventaire publié dans la Description de l'Égypte.

La mission de l'IFAO a entrepris, comme préalable à toute étude, un relevé détaillé du temple d'Hathor. Du point de vue technique, cette entreprise a privilégié la plus grande précision possible en ayant recours à un théodolite avec tachéomètre, assisté d'un logiciel de topographie. Plus de 80 000 mesures ont ainsi été effectuées permettant un repérage tridimensionnel des points caractéristiques des levés.

Ce travail a déjà permis de montrer, par quelques aspects, comment

l'évolution technologique des bâtisseurs antiques était stimulée par l'idéal d'éternité contenu dans le temple pharaonique. L'exigence de précision du relevé, outre l'intérêt documentaire, trouve une légitimation dans la possibilité d'étudier l'agencement spatial, tant d'un point de vue métrologique que de celui des rapports de proportions ou des jeux de lumière entre les ouvertures et les espaces. Les résultats devraient, au delà de l'intérêt de la sauvegarde scientifique, permettre d'apporter des éléments de référence aux entreprises de restauration et de restitution des structures architecturales.

ZINGARIELLI, Andrea Paula

Local Exchange in New Kingdom Egypt

The aim of this paper is to raise certain issues linked with local economy, especially the significance and importance of the exchange carried out on the Nile's banks during the period of Imperial Egypt. From representations in tombs and remarks in documents we try to define some economic mechanisms. In addition we analyze the role of the *shuty* in this local exchange.

ZIVIE, Alain

Les hypogées du nouvel empire à Saqqara: Découverte, préservation, mise en valeur

Voilà pratiquement vingt ans que la mission archéologique française du Bubasteion travaille sur le site de Saqqara. Elle a progressivement découvert et mis au jour un ensemble de tombes rupestres de première importance, dont la plupart étaient pratiquement inconnues et enterrées, ou masquées par les vestiges des inhumations de chats en liaison avec le sanctuaire de la déesse Bastet.

Des fouilles difficiles, compte tenu de la nature du site, ont permis de révéler des sépultures de toute première importance, tant par la personnalité de leurs propriétaires, grands personnages des XVIII^e et XIX^e dynasties, que par leurs particularités archéologiques, la qualité artistique de leur décor, voire par l'abondance et la qualité du matériel funéraire qui s'y trouve encore. Citons ainsi les hypogées du vizir Aper-El, du chancelier Mery-Rê, du directeur des greniers Mery-Sekhmet, des échansons Seth et Penrenout, et bien sûr de la nourrice royale Maïa.

Mais, au-delà de la fouille et de l'étude, la mission du Bubasteion a porté et porte une partie toujours plus grande de ses efforts et de ses moyens sur la consolidation et la préservation du site, de ses tombes, de leurs décors et de leur matériel. Un patrimoine archéologique exceptionnel, encore ignoré il y a peu, est ainsi progressivement sauvé et préservé, voire restauré, mais aussi mis en valeur pour lui-même et dans son cadre général.

ZIVIE-COCHE, Christiane

Tanis à l'époque ptolémaïque

Tanis se développa au début du premier millénaire et devint capitale sous les XXII^e et XXIII^e dynasties. Dès ses origines, elle fut comme une réplique, dans le Nord, de Thèbes. Ses cultes principaux, ceux de la triade d'Amon, Mout et Konsou, y furent installés avec leurs temples et leur personnel de culte.

Mais l'histoire de Tanis ne se limite pas à cette période. La cité, jouant un rôle politique moindre, poursuit son développement avec les transformations inhérentes à la longue durée. À l'exception de Petrie, les fouilleurs, Mariette, puis Montet, se sont médiocrement intéressés à la période ptolémaïque, cependant fort riche. Les travaux de la mission française des fouilles de Tanis, depuis plus de dix ans, ont permis d'en enrichir considérablement notre connaissance.

On exposera la topographie du tell avec ses bâtiments cultuels, dont un nouveau temple consacré à Horus de Mesen, et ses zones urbaines. Des statues, anciennement découvertes ou d'autres, récemment exhumées, seront examinées sur le plan stylistique. Le contenu de leurs textes autobiographiques permet d'analyser le fonctionnement des cultes qui avaient radicalement évolué depuis leur implantation. Ces statues montrent clairement l'influence de grands notables indigènes dans les villes de la *chora*. On constate l'existence d'une école tanitique de grande qualité et soucieuse d'originalité.

Enfin, la comparaison des réalités archéologiques et des listes géographiques traditionnelles de temples contemporains permet de comprendre les changements dans cette zone orientale du Delta. Une nouvelle image de Tanis ptolémaïque peut être mise en évidence.

ZONHOVEN Louis

The Four *sdm. n=f* Forms in Old Egyptian Narrative Texts

From the difference between Present Perfect and Simple Past contexts in the Old Egyptian corpus of narrative texts gathered by Doret it can be demonstrated that in that corpus four *sdm. n=f* forms are at work, i.e. the Indicative in addition to the Circumstantial, Substantival and Compound varieties. A vital argument for the Indicative variety is yielded by the bare form *rdi. n-i* as occurring in the Virtuous Life formula *rdi. n=i t n hqr* of earlier Old Egyptian, which cannot be the Circumstantial *sdm. n=f* as "vedette" to the sentence-initial *h3. n=i/iy. n=i/pr. n=i* forms of the Passing from Life to Death formula, as Polotsky claims the form to be. The Circumstantial *sdm. n=f* of the verb *rdi* as used in the temporal clause consistently shows the form *di. n=f*. Furthermore, it can be shown that the Indicative variety, which has retained true Present Perfect value, does not occur in Simple Past narrative, in contrast to the Substantival, the Circumstantial and—only in the later system using then the compound verb forms—the Compound. In Simple Past

narrative the Substantival and the Compound varieties function as 'deperfed' Historical Perfects, and the Circumstantial in the temporal clause as the Relative Past.

ZONHOVEN, L. and Janet H. JOHNSON,

Report on the Annual Egyptologicaal Bibliography

Zonhoven, editor of the AEB, and Johnson, chairman of the Oversight Committee for the AEB will present a brief report on the current status of the AEB and its short and long-term plans.

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